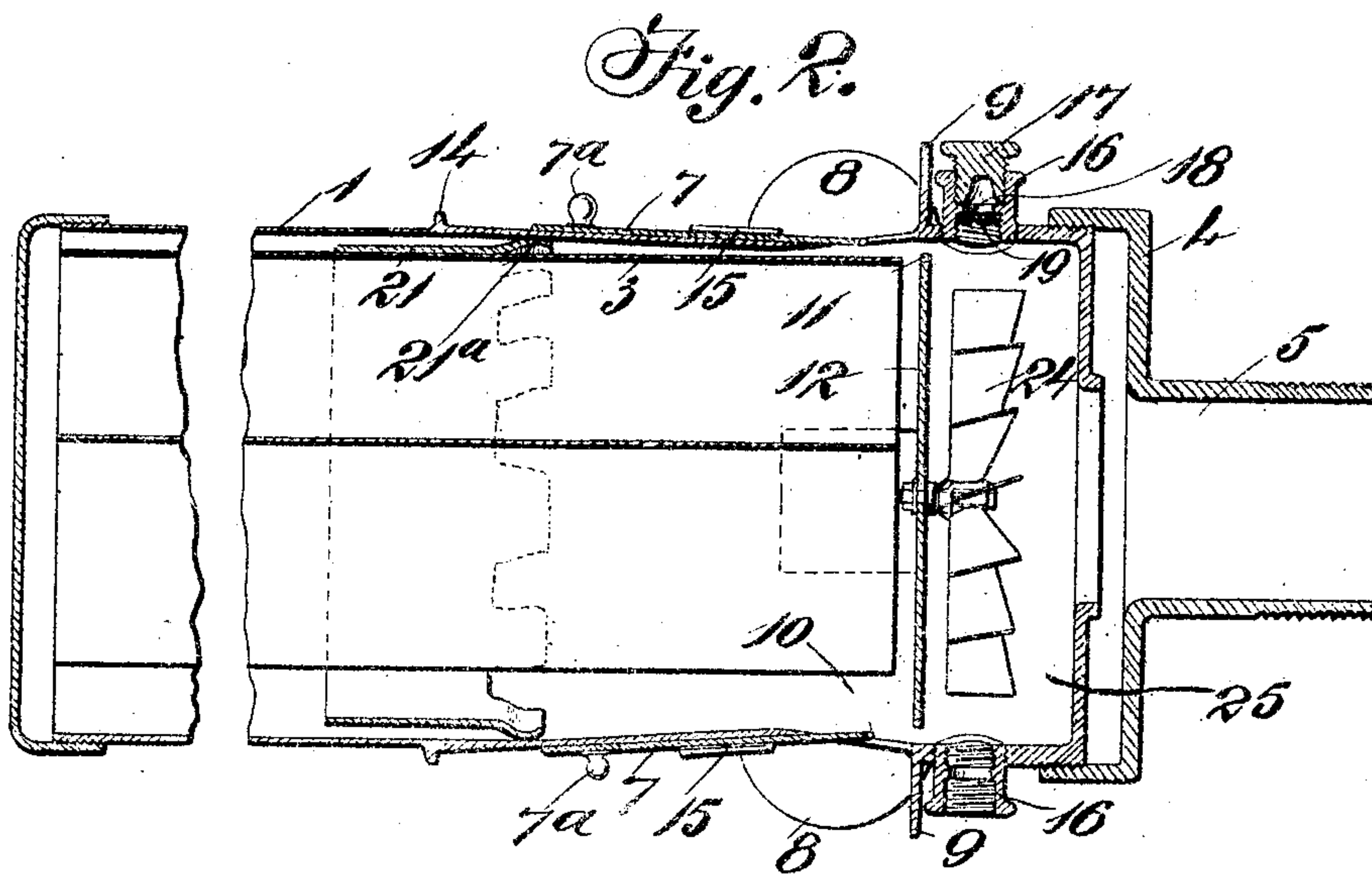
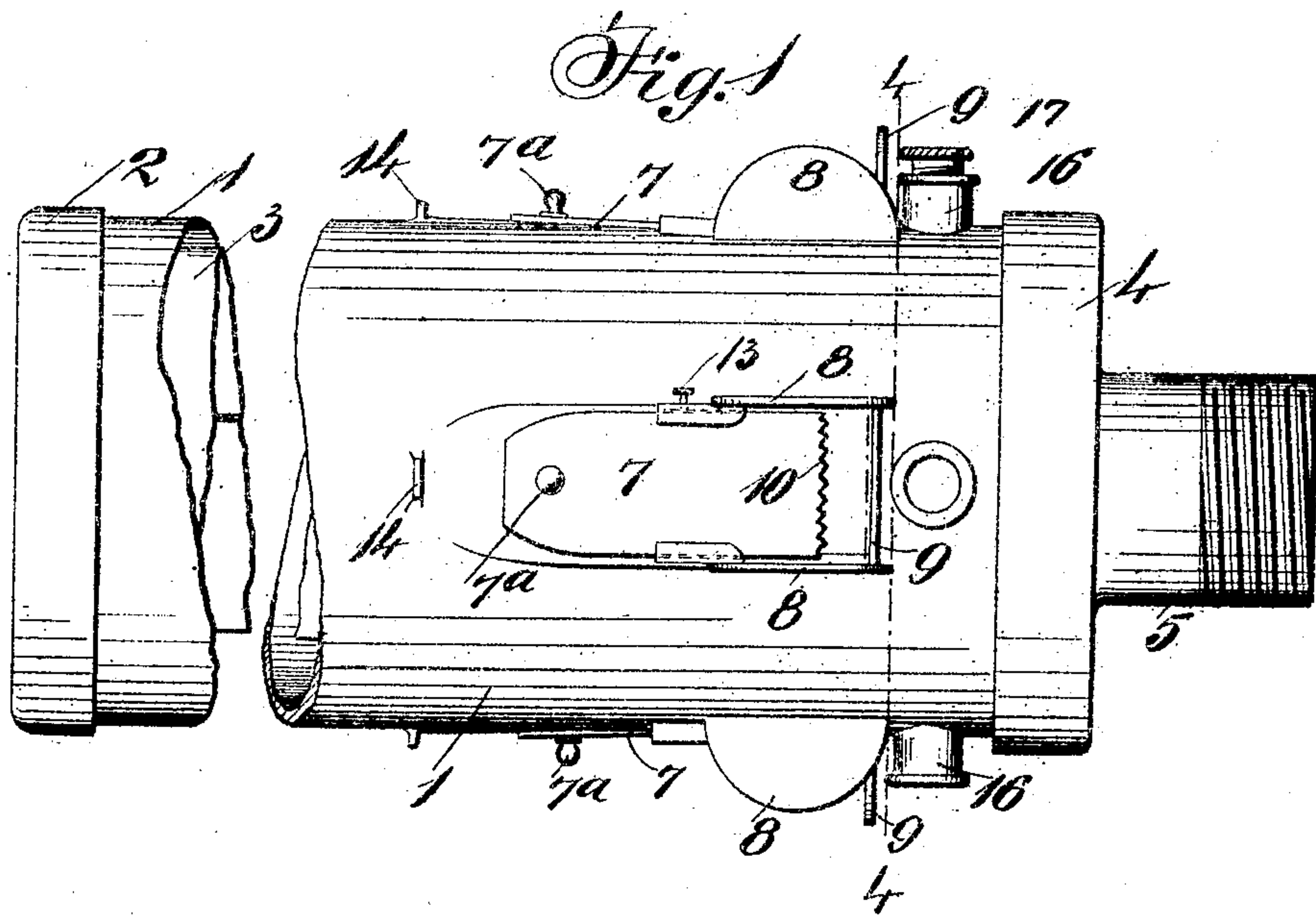


No. 896,606.

PATENTED AUG. 18, 1908.

R. WRIGHT.
AUTOMOBILE HORN.
APPLICATION FILED OCT. 15, 1907.

2 SHEETS—SHEET 1.



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2 SHEETS—SHEET 2.

Fig. 3.

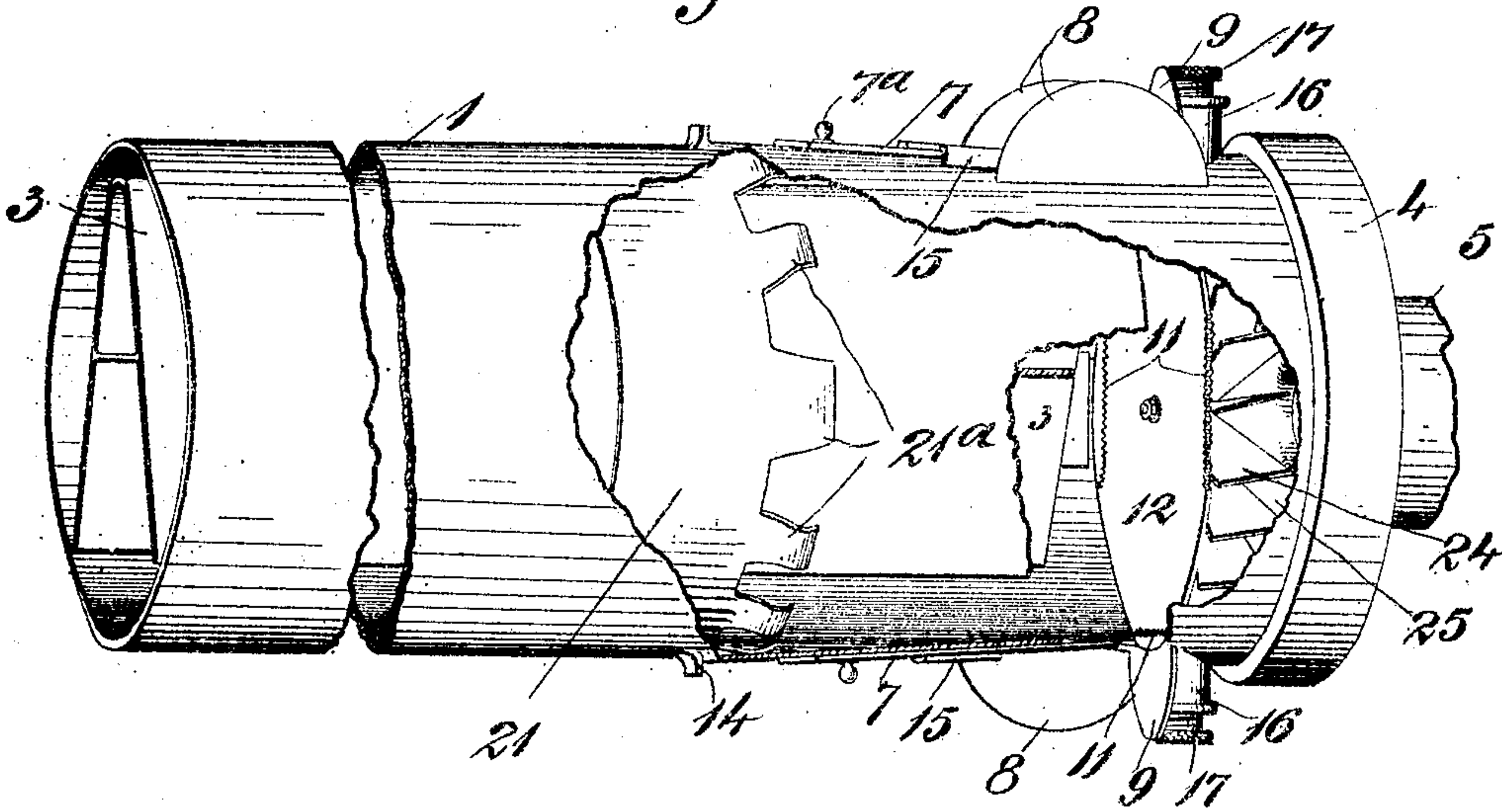
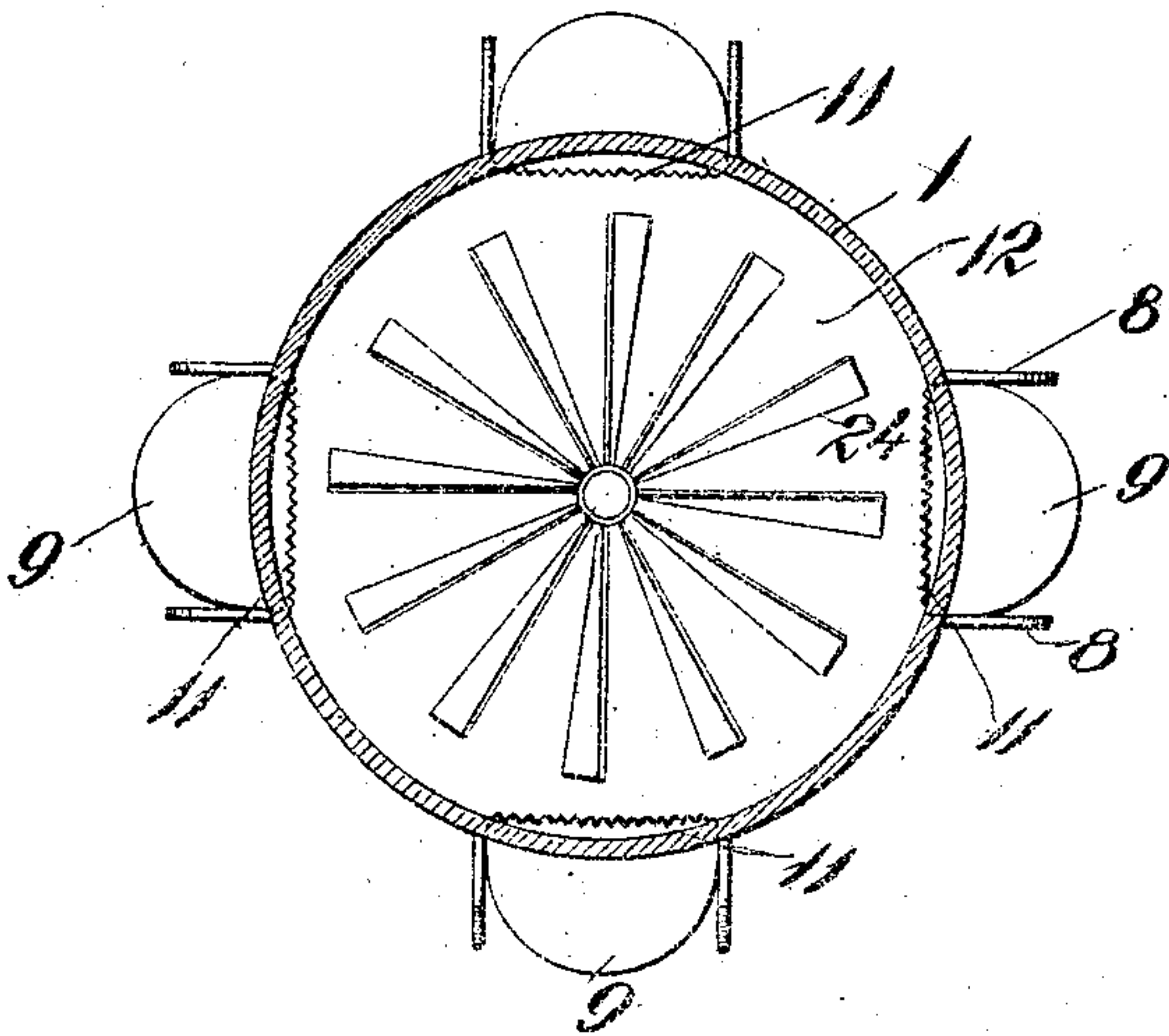


Fig. 4.



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ROBERT WRIGHT, OF CLEVELAND, OHIO.

AUTOMOBILE-HORN.

No. 896,606.

Specification of Letters Patent.

Patented Aug. 18, 1908.

Application filed October 15, 1907. Serial No. 397,503.

To all whom it may concern:

Be it known that I, ROBERT WRIGHT, citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Automobile - Horns, of which the following is a specification.

This invention is a horn particularly adapted for use in connection with the engines of automobiles or the like, being capable of operation by the exhaust from such engines in case they are of the internal combustion type, or by a supply of steam from a steam motor, or by air from an ordinary air bulb.

The object of the invention is to provide a device having improved means for producing and regulating the sound, and for allowing the horn to be cleaned. When the horn is operated by an exhaust from a gasoline engine, for instance, there is a great tendency for dirt and sediment to collect in the horn, which finally interferes with its operation.

The present invention provides means whereby this dirt can be blown out by the operation of the engine, without the necessity for tediously picking it out with a piece of wire or other instrument, as now commonly practiced.

The device also has means for the escape of condensation in case the horn is operated by steam, whereby the collection of water in the horn is prevented.

With these and other objects in view the invention is illustrated in the accompanying drawings and is hereinafter described.

In the drawings, Figure 1 is a side elevation of the horn. Fig. 2 is a vertical longitudinal section. Fig. 3 is a perspective view, the outer casing being partly removed. Fig. 4 is a section on the line 4-4 of Fig. 1.

Referring specifically to the drawings; 1 indicates the barrel, pipe or tube of the horn, and this is closed at its rear end by a screw cap 2. Within the body of the horn is a longitudinal A-shaped partition indicated at 3, which serves to divide the tube into several longitudinal compartments of different size or capacity, and results in connection with other parts to be hereinafter described, in several tones of different qualities, thereby producing a chime. At the front end of the barrel is a cap 4 to which a pipe 5 is connected, and said pipe may lead from the ex-

haust chamber of the gasoline engine, from a steam engine, or from any other source of fluid pressure.

The front end of the barrel is provided with a plurality of openings between lips 8 and 9, and at each opening is a tongue or reed 7, consisting of a metal plate which is slidable in and out in guides 15 at the sides, to vary the position of the tongues and the size of the openings, with resulting variation in the tone. When a large opening is left a softer or lower sound is produced, while with a small opening a siren or high pitched tone is produced. The tongues are held as set by thumb screws 13, and obviously the tongues may be independently adjusted to produce different sounds, harmonious or otherwise. A handle 7^a facilitates the movement of each tongue, and a stop 14 prevents it being drawn out too far.

Extending across the barrel, at the front edge of the sound openings, is a diaphragm 12, which is fixed in the tube and slightly truncated opposite each hole, the truncated edge being toothed as indicated at 11. Each tongue 7 is provided at its front edge with corresponding teeth 10, and when the tongue is moved up to the fullest extent its teeth enter between the teeth 11 and substantially close the opening or slit between the diaphragm and the barrel, so that the escape of the operating fluid is to a large extent prevented. This is useful in cleaning the horn, as hereinafter explained. In front of the partition 12 is a fan 24 which rotates in the front chamber 25 in the barrel. The purpose of this fan is to give a whirring sound to the horn and also to blow out or dislodge sediment which may tend to collect in the chamber. There is a great tendency for soot and dirt to collect between the teeth 11. By shoving the plate 7 forwardly this dirt may be dislodged and forced into the said chamber from which it may be blown out.

At its front end the A-shaped partition 3 is surrounded by a collar 21 which is soldered to said partition and serves to support and hold the same in proper position, the collar having projections 21^a which bear against the side of the barrel with sufficient friction to hold the parts as set, but by removing the cap 2 the partition 3 may be turned, which varies the location or position of the several parts of the partition with respect to the

tongues, and has the effect of varying the sound produced by changing the capacity or position of the vibrating compartments into which the barrel is divided by the partition.

5 The chamber 25 at the front end of the horn is provided with a plurality of nipples 16, extending through the barrel, and each nipple has a plug 17, a screen 18, and a sheet of filtering paper 19. The dirt tends to col-
10 lect in the chamber 25, and it may be blown out through the nipples 16, by removing the plug, the screen and the filtering paper. When the device is connected to a gasoline engine the caps 17 are put in place. When
15 used in connection with a steam engine the caps 17 are removed which allows any water of condensation to escape through the filtering paper and through the screen 18. At the
20 same time the filtering paper prevents, to a certain extent, the escape of the steam. With the gasoline engine it is essential or desirable that the chamber be made as air-tight as possible, for which reason the plugs 17 are inserted.

25 To blow out dirt from the chamber the tongues 7 are first slipped forward against the teeth 11 to close the sound openings as much as possible; the plugs 17, the screen 18 and the paper 19 are then removed, and by
30 starting the engine any dirt within the chamber is blown out through the nipples.

As heretofore described, the volume or nature of the tone or sound produced may be varied by adjustment of the tongues 7 and
35 the partition 3.

I claim:

1. A horn comprising a pipe having an opening in the side, a partition across the pipe forming a chamber in front of said open-
40 ing and having an outlet thereto, a tongue slidable on the pipe, across said opening, the

end of the tongue and the edge of the partition at the outlet being toothed.

2. A horn comprising a pipe having a plurality of sound producing devices at the end thereof, and a longitudinal partition in the
45 body of the pipe, forming a plurality of longitudinal chambers, the partition being adjustable to change the position of said chambers with respect to the said devices, to vary the
50 tones.

3. A horn comprising a pipe having a partition across the same forming a chamber in the front end, sound producing devices arranged to receive fluid from said chamber, and a fan located in said chamber and
55 adapted for rotation by the flow of fluid therein.

4. A horn comprising a pipe having a plurality of sound producing devices thereon, an irregular longitudinal partition in the body of the pipe, forming a plurality of longitudinal chambers of different sizes, and a collar around the partition, in frictional contact with the inside of the pipe, the partition and
60 collar being rotatable in the pipe, to vary the position of the chambers with respect to the sound producing devices.

5. A horn comprising a pipe having a partition forming a chamber in the inlet end thereof, sound producing devices supplied from said chamber, and a vent in the pipe, to said chamber, provided with a removable
70 plug, a screen and a filter, substantially as described.

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

ROBERT WRIGHT.

Witnesses:

JOHN A. BOMMARDT,
EDITH D. COMER.