

No. 879,797.

PATENTED FEB. 18, 1908.

V. H. RAPKE.
PHONOGRAPH HORN.
APPLICATION FILED JUNE 15, 1907.

Fig. 1.

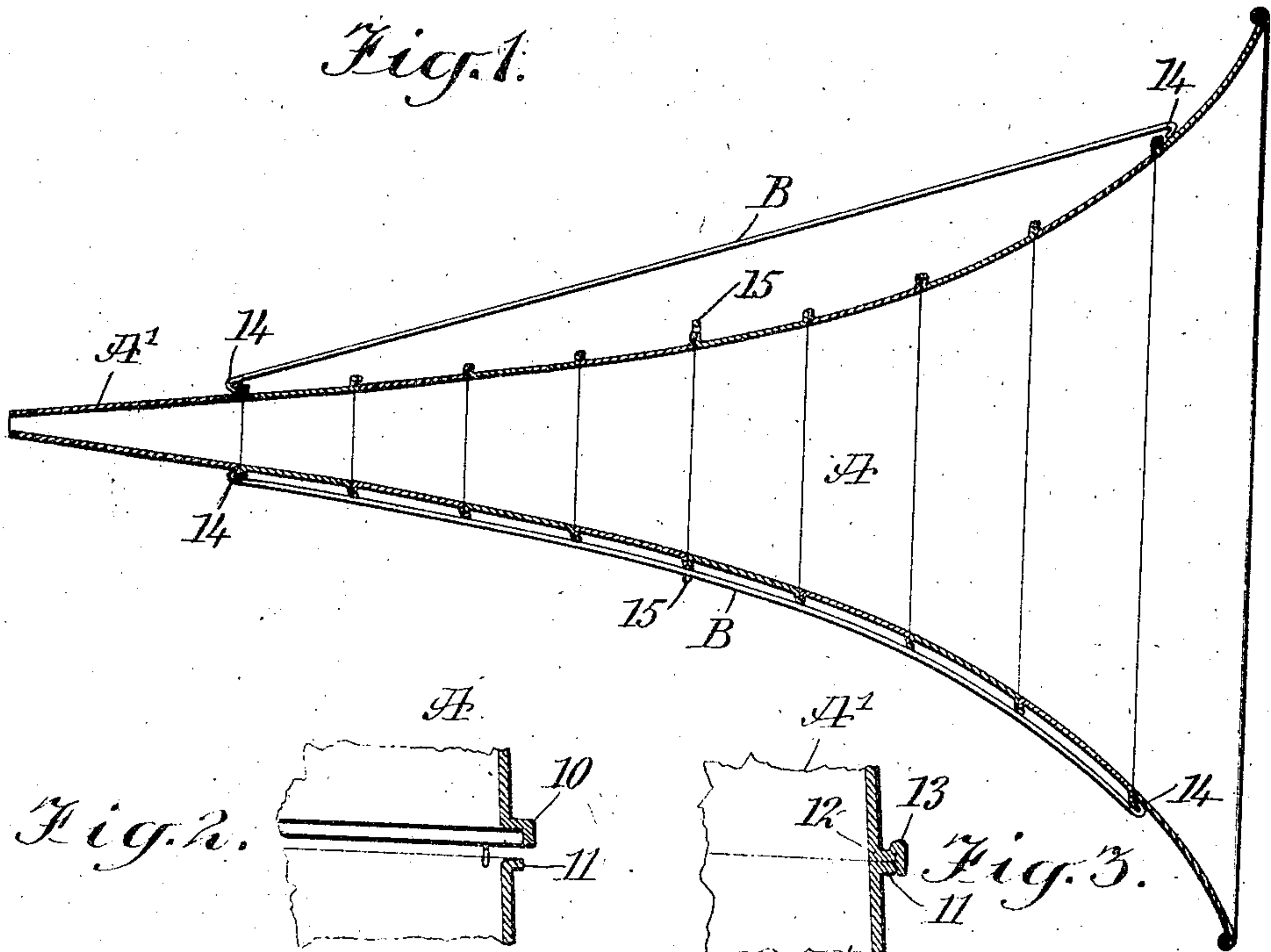


Fig. 2.

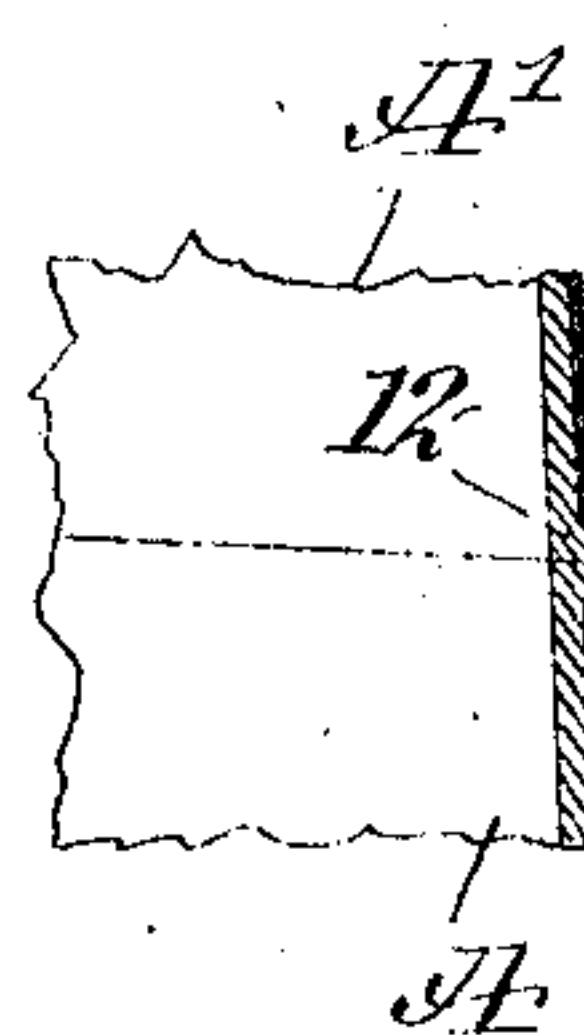
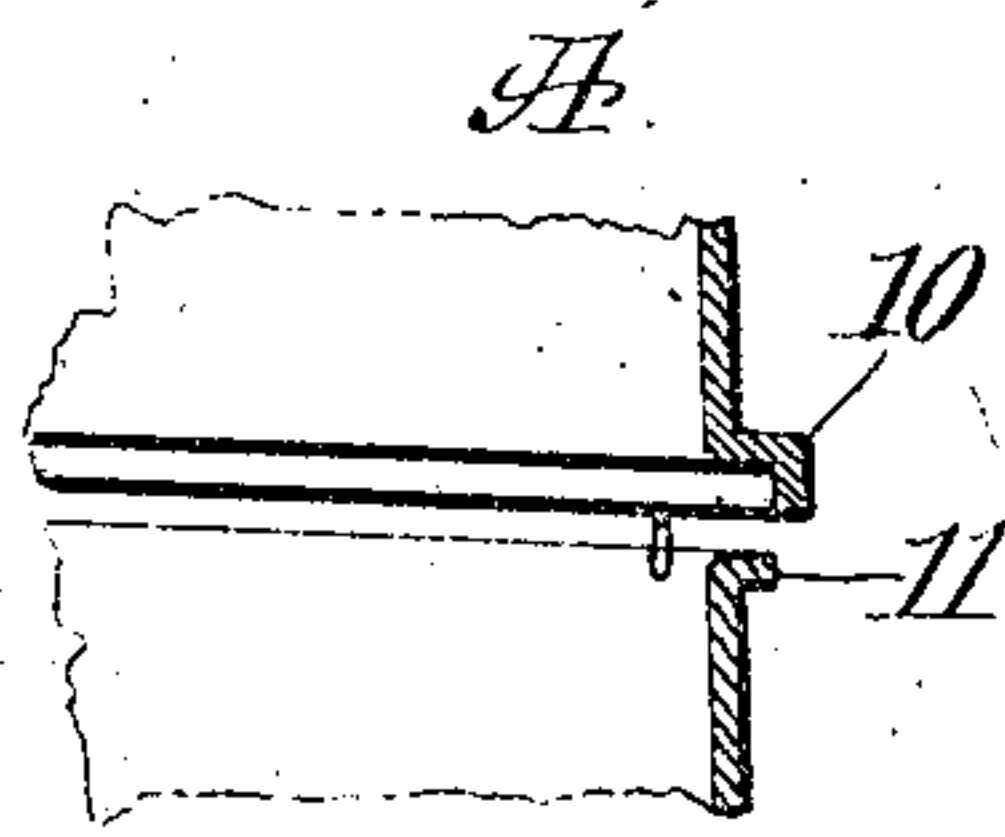


Fig. 3.

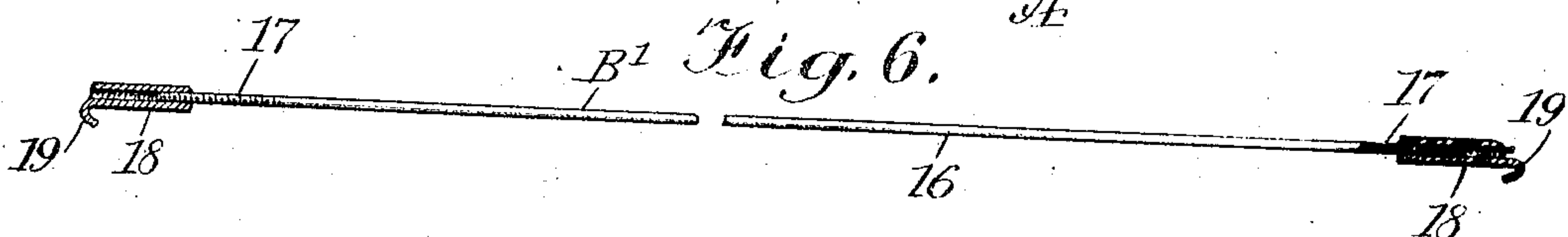


Fig. 6.

Fig. 4.

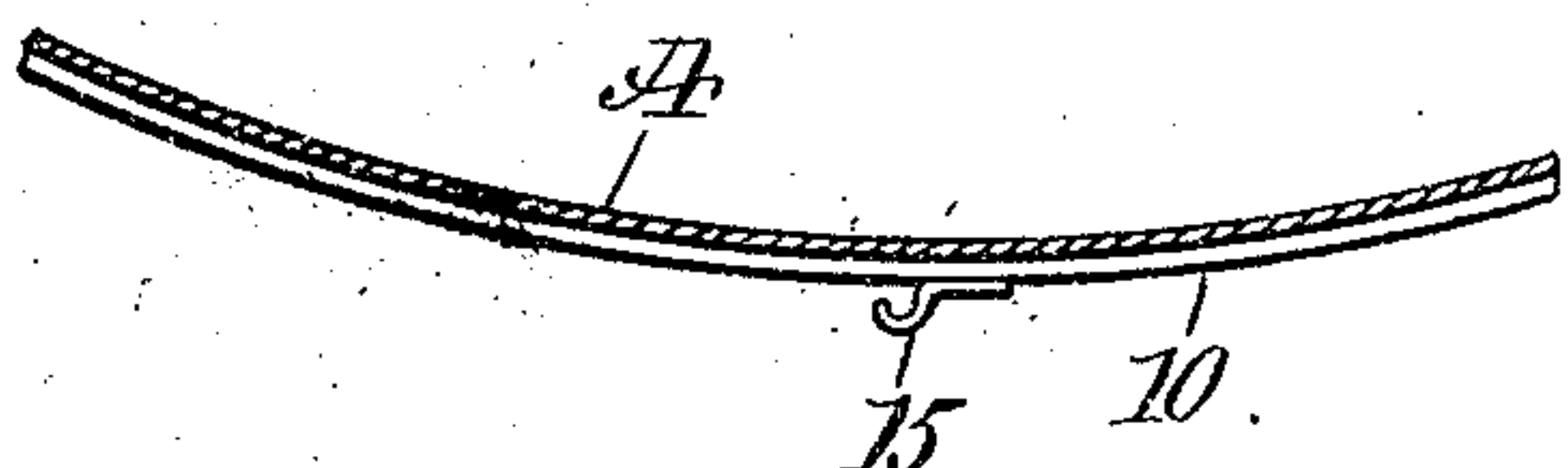
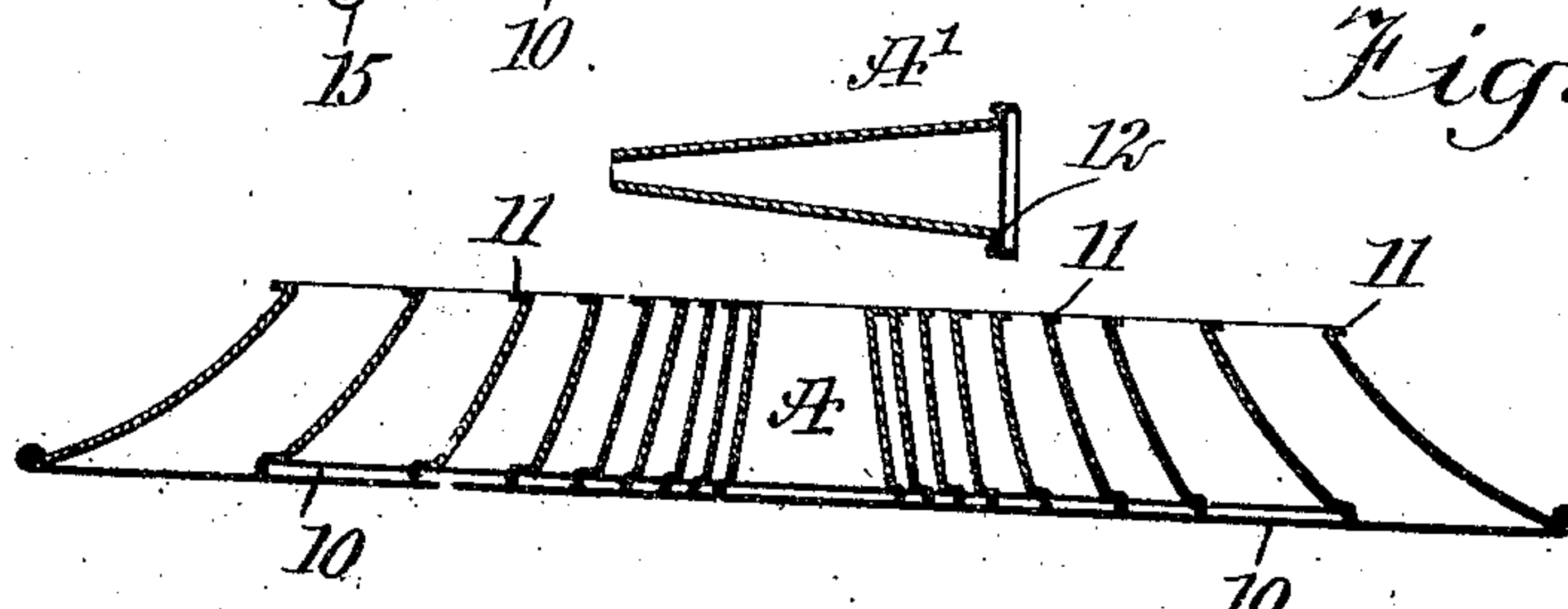


Fig. 5.



WITNESSES

George Taylor
John H. Allen

INVENTOR

Victor H. Rapke

BY

Mumford Co.

ATTORNEYS

UNITED STATES PATENT OFFICE.

VICTOR H. RAPKE, OF NEW YORK, N. Y.

PHONOGRAPH-HORN.

No. 879,797.

Specification of Letters Patent.

Patented Feb. 18, 1908.

Application filed June 15, 1907. Serial No. 379,119.

To all whom it may concern:

Be it known that I, VICTOR H. RAPKE, a citizen of the United States, and a resident of the city of New York, borough of Manhattan, in the county and State of New York, have invented a new and useful Improvement in Phonograph-Horns, of which the following is a full, clear, and exact description.

10 The purpose of the invention is to provide a collapsible phonograph horn or megaphone, wherein the sections can be completely separated one from the other, and compactly nested, and to provide simple means for
15 drawing the sections together, which means can be quickly and conveniently applied or removed.

It is a further purpose of the invention to so construct the horn that the vibrations will
20 not be carried from one section to the other, and whereby the vibrations will be extremely light and will in no manner interfere with the sound waves passing through the horn; and it is also a purpose of the invention to so construct the horn that there will be absolutely
25 no rattling when the horn is set up and in use.

The invention consists in the novel construction and combination of the several
30 parts as will be hereinafter fully set forth and pointed out in the claims.

Reference is to be had to the accompanying drawings forming a part of this specification, in which similar characters of reference
35 indicate corresponding parts in all the figures.

Figure 1 is a longitudinal section through the improved horn, showing one tie rod simply fitted thereto and a second tie rod in clamping engagement therewith; Fig. 2 is an
40 enlarged section through portions of opposing body sections of the horn, illustrating the manner in which one section is fitted to the other; Fig. 3 is a view similar to that shown in Fig. 2, but illustrating the form of connection employed between the inner or most
45 contracted body section and the section next thereto; Fig. 4 is an enlarged transverse section through a portion of the horn, illustrating a form of keeper employed for the locking or clamping devices for the body sections of
50 the horn; Fig. 5 is a longitudinal section through the body section of the horn, showing the said body sections nested; and Fig. 6 is a sectional side elevation of one of the tie
55 rods, showing a modified construction.

The horn is made up of sections A, any desired number of sections being employed, and the said sections are usually of the same depth except the most contracted or innermost section that is designated as A'. When
60 the sections or members of the horn are assembled they lie in close engagement one with the other, and while various means may be employed for effecting a connection between opposing sections of the horn, the
65 means shown in detail in Figs. 2 and 3 are those that are preferred. It will be distinctly understood that the sections of the horn in no manner telescope each other, but their opposing edges rest flatly and smoothly
70 one against the other, and in holding the sections of the horn assembled they are drawn together by clamping devices to be hereinafter described.

Each body section A is provided with a
75 hub 10 at one end and an outwardly extending flange 11 at the opposite end, the flange of one section being neatly received in the hub of an opposing section, but a slightly different form of connection is provided between the inner section A' of the horn and
80 the next section thereto, and this connection is illustrated in Fig. 3, and may be used for all the sections and consists in providing an angular flange 12 at the outer edge of the
85 forward end portion of the said section A', against which angular flange 12 the flange 11 of the next section has bearing. The flange 12 of the horn section A' is provided at the junction of its members with an annular rib
90 or bead 13. The fastening device employed consists of two or more, usually three, tie rods B and these tie rods B are made of spring material of suitable gage, and each rod B is provided with a hook 14 at each end, as
95 shown in Fig. 1.

After the sections of the horn have been assembled, one of the hooked ends of the tie rods are made to engage with the connection between the forward section A and the section next thereto, and the opposite ends of
100 the tie rods are made to engage with the flange 12 at the head 13 thereon, as is shown in Fig. 1. The tie rods B are made of such length that when they have been sprung into
105 the position just described, they are tight and will hold the sections of the horn together, but in order that the said sections may be positively drawn and firmly held in engagement one with the other, the tie rods B
110

are sprung inward at their central portions so as to lie against the exterior of the horn conforming to its exterior contour, as is also shown in Fig. 1, and the tie rods are held in this position by passing them beneath keepers 15, usually formed on the exterior of one of the sections of the horn, and these keepers 15 are preferably in the form of hooks, as is clearly illustrated in Fig. 4, and where the rods and keepers engage either one or the other may be insulated so as to prevent the rods from vibrating or conducting vibrations from one section to the other.

The tie rods B shown in Fig. 1 are plain, that is to say they are made from one piece of material, but it is sometimes desirable to employ the type of rod B' shown in Fig. 6, wherein the rod is provided with an exterior thread 17 at each end, one thread being a right-hand thread and the other a left-hand thread, the threaded end of a tie rod is received in a correspondingly threaded sleeve 18, and each of the said sleeves 18 is provided with a hook 19 at its outer end. The tie rods B' are applied in the same manner as the tie rods B and are also held to the body of the horn by keepers 15, but in the form of the tie rods B' the said rods may be lengthened or shortened to adapt them to horns of different length.

It is evident that a horn of the character described can be quickly and conveniently built up and locked in its set-up position, and that by simply loosening and removing the tie rods employed the sections of the body of the horn will separate and can be nested, as is shown in Fig. 5, and packed in an exceedingly small compass. I desire it to be understood that insulating material may also be employed when the ends of the rods engage the sections of the horn.

Having thus described my invention, I claim as new and desire to secure by Letters Patent,—

1. A phonograph horn or like device, constructed in independent sections, and clamping devices for drawing the sections together and holding them in abutting engagement one with the other.

2. A phonograph horn or like device, constructed in a series of independent sections, separable connections between opposing

edges of the sections, and devices for drawing the sections together in abutting relation.

3. A phonograph horn or like device, constructed in a series of independent abutting sections, separable connections for the sections, and clamping devices in engagement with the exterior portion of the end sections of the horn.

4. A phonograph horn or like device, constructed in a series of independent sections, tie rods in clamping engagement with the exterior faces of the end sections of the horn, and keepers for the said rods carried by an intermediate section of the horn.

5. A phonograph horn or like device, constructed in a series of independent sections, separable connections between opposing sections, tie rods of a spring material having their end portions in clamping engagement with the outer faces of the end sections of the horn, and keepers secured to the exterior of an intermediate section of the horn, the said tie rods being sprung beneath the said keepers at points between their ends whereby to have a drawing action on the sections of the horn.

6. The combination with a phonograph horn or like device, constructed in a series of sections, which sections are placed edge to edge, and separable connections between opposing edges of the said sections, of tie rods constructed of a spring material, the said rods having a right-hand thread at one end and a left-hand thread at the opposite end, correspondingly threaded sleeves that receive the threaded ends of the rods, hooks located at the outer end portions of the said sleeves adapted for engagement with the exterior of the horn where the outer sections connect, and with the exterior of the horn where the inner sections connect, and keepers secured in the intermediate section of the horn, beneath which keepers the said tie rods are passed at points between their ends.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

VICTOR H. RAPKE.

Witnesses:

J. FRED ACKER,
JOHN P. DAVIS.