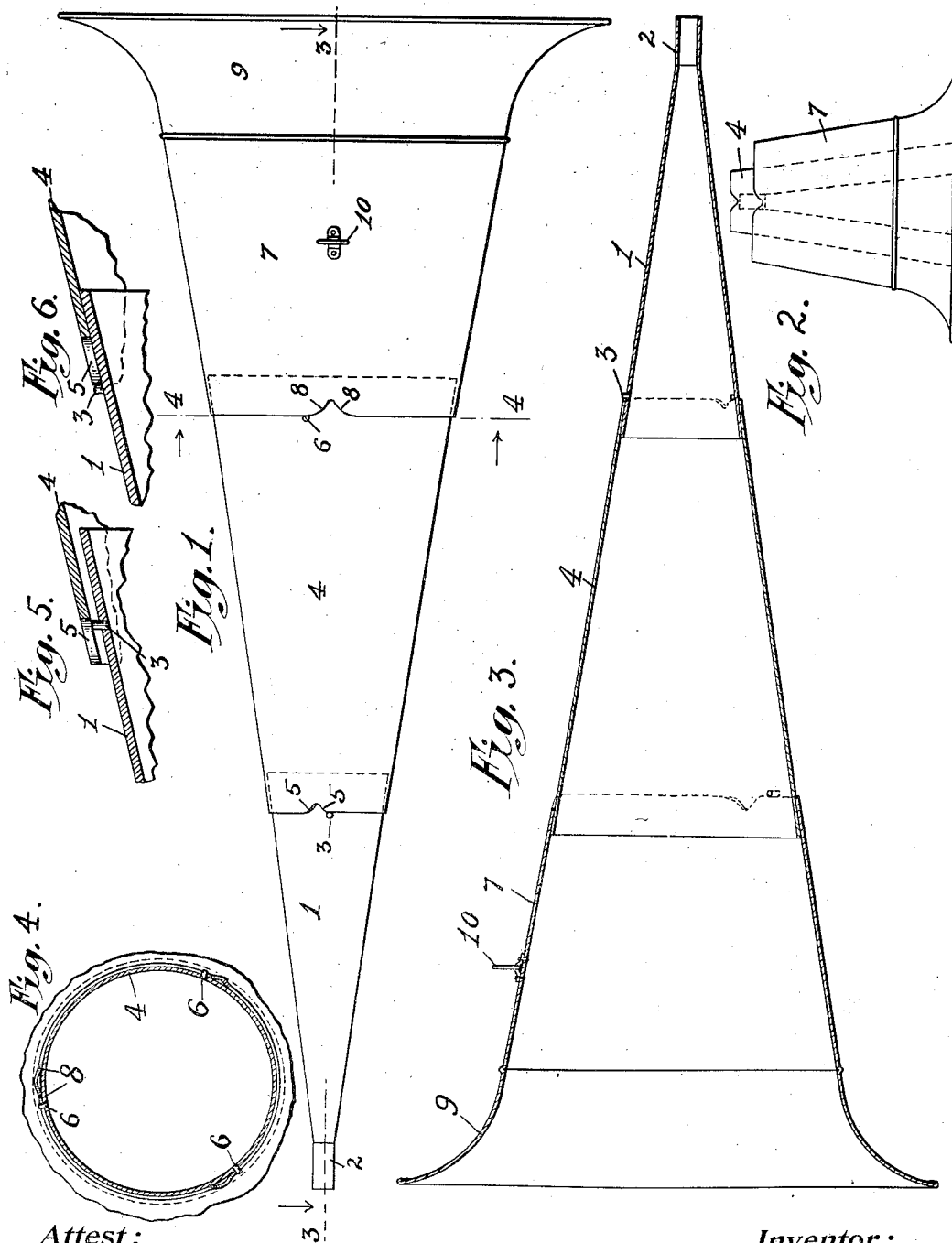


No. 820,158.

PATENTED MAY 8, 1906.

P. WEBER.
PHONOGRAPH HORN.
APPLICATION FILED FEB. 21, 1905.



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PHONOGRAPH-HORN.

No. 820,158.

Specification of Letters Patent.

Patented May 8, 1906.

Application filed February 21, 1905. Serial No. 246,669.

To all whom it may concern:

Be it known that I, PETER WEBER, a citizen of the United States, residing at Orange, in the county of Essex, State of New Jersey, have invented certain new and useful Improvements in Phonograph-Horns, of which the following is a specification.

My invention relates to collapsible horns for use principally in connection with phonographs or other talking-machines, although it is obviously capable of other uses.

My invention operates, broadly, upon the same general principle as the horn described and claimed in an application filed by me June 29, 1904, Serial No. 214,595, in which tapered sections are locked together by a projection upon one section pressing against an inclined shoulder upon the other section, so that a rotary movement of one section with respect to the other causes a relative longitudinal movement of the section, and on account of their tapering form jams them tightly together, so as to produce a continuous horn possessing as great or greater rigidity than one constructed of a single piece of metal.

My invention comprises certain new and useful improvements in the class of horn just referred to, which will be pointed out and claimed.

Reference is hereby made to the accompanying drawings, in which the same numerals of reference designate corresponding parts in the several views, of which—

Figure 1 is a side elevation showing the sections of the horn in their assembled relation. Fig. 2 is an elevation, on a smaller scale, showing the horn with the sections nested. Fig. 3 is a section on the line 3 3 of Fig. 1. Fig. 4 is a section, partly broken away, on line 4 4 of Fig. 1. Figs. 5 and 6 are detail sectional views showing the locking pins or projections and cooperating shoulders on an enlarged scale, Fig. 5 showing the relative positions of these parts when the projection is first placed in engagement with the shoulder and Fig. 6 the relative positions after the projection has been caused to ride up on the shoulder, so as to jam the sections firmly together. As preferably constructed, the horn consists of three sections, although a smaller or greater number may be used. The smallest section 1 is provided at one end with the tube

2 for receiving a flexible connection with the talking-machine. The large end of this section is provided with a number of pins or projections 3. These projections are preferably three in number and are situated at intervals of one hundred and twenty degrees around the circumference of the section, although obviously any number of pins may be used. The second section 4 is preferably shaped as shown in the drawings, that edge which is adjacent the section 1 being formed with inclined shoulders 5. In the prior construction referred to inclined shoulders were provided by forming slots in one of the sections; but such an arrangement is less desirable than my present improvement, since the appearance is not so attractive and also because when the metal between the slot and the edge of the section is narrow it is likely to become bent or distorted by careless handling of the horn, so that it becomes difficult to lock the sections together. Furthermore, my present construction is simpler, its mode of operation is more easily comprehended by the average user, and it is easier to place the pins against the cooperating shoulders in assembling the device than to insert them in the slots above referred to.

It will be observed that since the shoulders 5 occur in pairs sloping in opposite directions the sections 1 and 4 can be locked together by turning one section in either direction with respect to the other. In order to unlock the sections, it is only necessary to give them a slight movement in a reverse direction to that by which they are locked, so that the projection on one section rides down the inclined shoulder a short distance, whereupon the sections become loosened and may be easily separated by direct longitudinal movement. (See Figs. 5 and 6.) The section 4 is provided at its enlarged end with projections 6, similar to the projections 3 of the section 1. The section 7 is provided at its small end with inclined shoulders 8, similar to the shoulders 5, and its large end is flared to form the bell 9, with which such devices are usually provided. A ring 10 is preferably secured to this section for the purpose of supporting the same.

Obviously the locking-pins may project from the interior of one of the sections at its small end and cooperate with locking-should-

ders formed on the other section at its large end. In this case when the sections are locked together the locking means will be entirely concealed within the body of the horn, and the margin of the sections which is visible may be formed with any desired contour. The positions of the sections in which they are free to be separated longitudinally will then be preferably indicated by any suitable external marking.

Having now described my invention, what I claim as new therein, and desire to secure by Letters Patent, is—

1. In a device of the character described, a tapered section whose limiting edge is inclined with respect to a plane perpendicular to its axis and a second tapered section having a projection adapted to press against said inclined edge, whereby relative rotary movement of the sections causes relative longitudinal movement thereof and locks them rigidly together, substantially as set forth.

2. In a device of the character described, a tapered section whose limiting edge comprises a plurality of shoulders each of which is inclined with respect to a plane perpendicular to its axis and a second tapered section having a plurality of projections adapted to press against said inclined shoulders, whereby relative rotary movement of the sections causes relative longitudinal movement thereof and locks them rigidly together, substantially as set forth.

3. In a device of the character described a tapered section provided with a pair of shoulders oppositely inclined with respect to a plane perpendicular to its axis and a second

tapered section having a projection adapted to press against either of said inclined shoulders whereby relative rotary movement of the sections in either direction causes relative longitudinal movement thereof and locks them rigidly together, substantially as set forth.

4. In a device of the character described, a tapered section whose limiting edge comprises a pair of shoulders oppositely inclined with respect to a plane perpendicular to its axis and a second tapered section having a projection adapted to press against either of said inclined shoulders, whereby relative rotary movement of the sections in either direction causes relative longitudinal movement thereof and locks them rigidly together, substantially as set forth.

5. In a device of the character described, a tapered section whose limiting edge comprises a plurality of pairs of shoulders oppositely inclined with respect to a plane perpendicular to its axis and a second tapered section having a plurality of projections adapted to press against similarly-inclined shoulders of each pair, whereby relative rotary movement of the sections in either direction causes relative longitudinal movement thereof and locks them rigidly together, substantially as set forth.

This specification signed and witnessed this 20th day of February, 1905.

PETER WEBER.

Witnesses:

FRANK L. DYER,
ANNA R. KLEHM