

E. L. AIKEN.
HORN SUPPORT.
APPLICATION FILED MAY 15, 1907.

952,225.

Patented Mar. 15, 1910.

Fig. 1

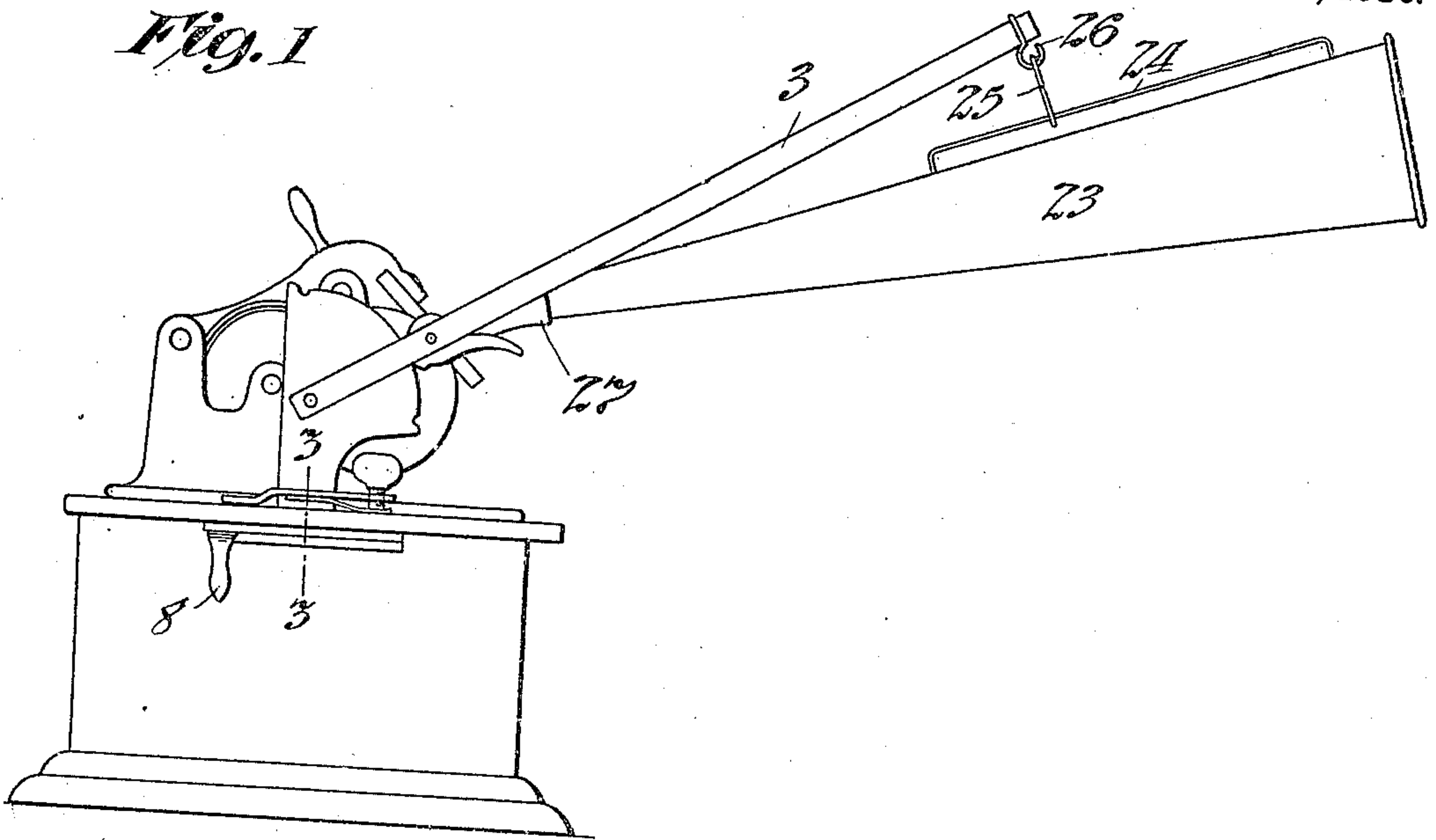


Fig. 2

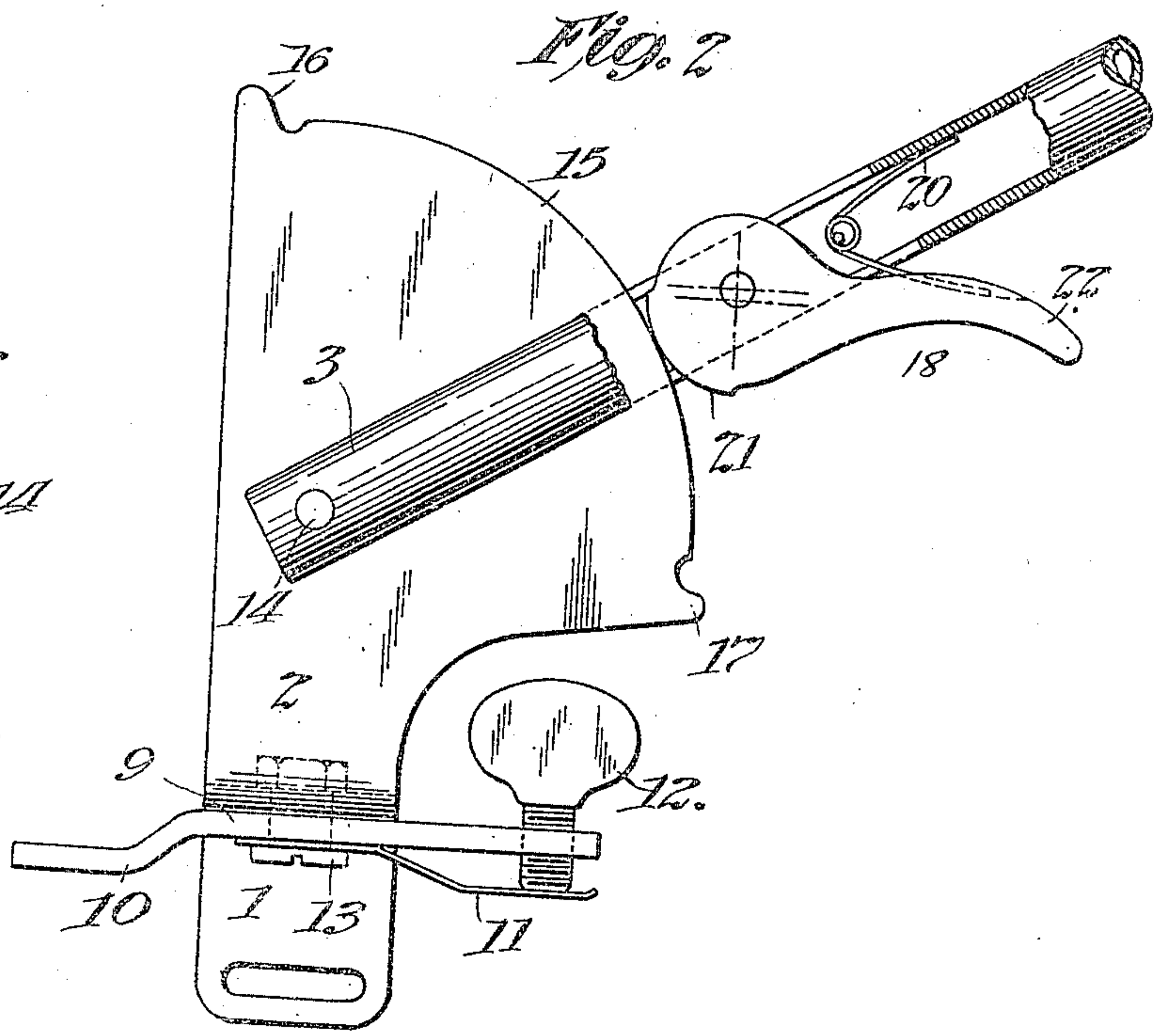
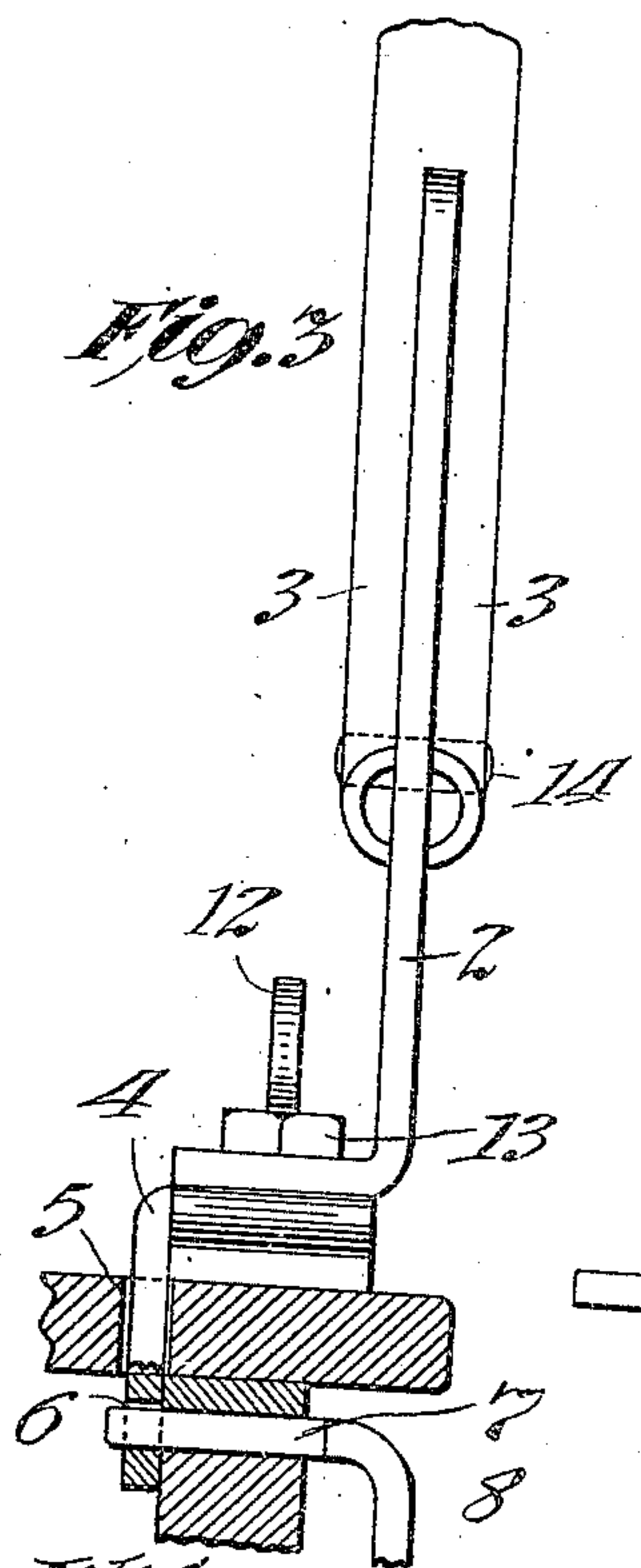


Fig. 3



Witnesses:
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UNITED STATES PATENT OFFICE.

EDWARD L. AIKEN, OF ORANGE, NEW JERSEY, ASSIGNOR TO NEW JERSEY PATENT COMPANY, OF WEST ORANGE, NEW JERSEY, A CORPORATION OF NEW JERSEY.

HORN-SUPPORT.

952,225.

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To all whom it may concern:

Be it known that I, EDWARD L. AIKEN, a citizen of the United States, and a resident of Orange, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Horn-Supports, of which the following is a description.

My invention relates to a device for supporting the funnel or horn of talking machines, and has for its object the provision of an improved device which is universally adjustable, and which is simple, easily operated and cheap to manufacture.

With these ends in view, my invention consists of the features hereinafter described and claimed.

Reference is hereby made to the accompanying drawing, wherein—

Figure 1 is a view in side elevation of a phonograph provided with a horn, and supporting means for the said horn applied to the cabinet of the instrument, and constructed in accordance with my invention; Fig. 2 is a similar view, partly in section, and on an enlarged scale, of a portion of the horn supporting device, and Fig. 3 is a cross-sectional view, partly in elevation, the cross-sectional part thereof being taken on the line 3—3 of Fig. 1, and upon the same scale as Fig. 2.

In all of the views corresponding parts are designated by the same reference numerals.

My improved horn support comprises three principal parts, namely; a clamping member 1, for securing the support to the cabinet of the machine; a supporting member 2 which is rotatable on the clamping member upon a vertical axis, and a pivoted supporting member 3, which is rotatable upon a horizontal axis on the supporting member 2, and from the outer end of which the horn is supported. The point from which the horn is supported is thus capable of motion both in the vertical and horizontal planes, or in other words, it is universally adjustable.

The clamping member 1 comprises a tongue 4 and a cross head 9, and it is preferably made by stamping it out from an integral piece of sheet metal, and thereafter bending the tongue 4 downwardly at right angles to the cross head 9. The tongue 4 is of a size and shape suitable for passing

through the slot 5 which is formed in the top of the cabinet of phonographs of the Edison type, and is designed to receive tongues similar to the tongue 4 for securing the cover to the cabinet. Said tongue 4 has a slot 6 adapted to receive the finger 7 of the locking lever 8, which forms a part of the phonograph referred to, and is ordinarily used for retaining the cover in place thereon.

It is desirable that the cross head 9 shall have a bearing at each of its ends upon the top of the phonograph cabinet. To this end I have shown the cross head 9 formed with a downwardly extending portion 10 at one end thereof and with resilient means, as for example, a leaf spring 11, extending downwardly beneath the opposite end thereof, and of substantially the same form as the downwardly extending end 10. In that end of the cross head 9 immediately above the leaf spring 11, is threaded a thumb screw 12, by which the said spring 11 may be made to bear with more or less pressure as desired, upon the top of the phonograph cabinet. The spring 11 serves to protect the phonograph cabinet from being marred by the screw 12. In adjusting the clamping member in position it will be understood that the tongue 4 is inserted in the slot 5 of the phonograph cabinet and held in place by means of the latch 8, and then the thumb screw 12 is screwed down, thus insuring a simple and firm connection between the clamping member and the cabinet. The clamping member, together with the other parts of the horn support may readily be removed by unscrewing the thumb screw 12 and disengaging the latch 8 from the tongue 4.

The supporting member 2, which I have shown in the form of a flat plate, having a sidewise projecting portion at the bottom thereof, is mounted upon the clamping member 1 in such a manner that it may turn thereon upon a vertical pivot. In the construction shown a screw bolt 13 is made use of for rotatably connecting the supporting member 2 to the clamping member 1, and also for holding the leaf spring 11 in position upon the cross head 9. The vertically adjustable supporting member 3 which is shown as a tube slotted at its end, so as to pass upon each side of the supporting plate 2, is pivoted to the said supporting plate

upon a horizontal pivot, as shown at 14. The supporting plate 2 is provided with a curved face 15 in the form of a quadrant of a circle whose center is the pivot 14. Stops 5 16 and 17 are provided at the respective ends of the curved surface 15. In order to maintain the adjustable supporting member 3 in any desired position upon the plate 2, I have provided means which by engaging the 10 curved surface 15, will hold the said supporting member 3 in any desired position. The means shown for this purpose is a pivoted pawl 18 having a slightly eccentric cam surface 21 adapted to bear upon the said 15 curved surface 15 of the supporting plate 2. This pawl is provided with a finger piece 22 at its end opposite the cam face 21, and a spring 20, which like the pawl 18, is mounted within the supporting member 3, serves 20 to hold the pawl normally in such position that the cam surface 21 will forcibly engage the surface 15. By releasing the pawl 18, through pressure upon the thumb piece 22 against the spring 20, the member 3 may be 25 adjusted into any position between horizontal and vertical position with respect to the supporting plate 2, and when pressure upon the thumb piece 22 is released the cam surface of the pawl will act to hold the member 30 3 in the said adjusted position. It is to be noted that the cam surface 21 is so arranged with respect to the surface 15 that the downward pressure upon the supporting rod 3, due to gravity, will cause increased pressure between the said surfaces 15 and 21, so 35 that the member 3 will be positively held in any position to which it may be adjusted.

The horn 23 has secured upon its upper side an elongated supporting means such as 40 a staple 24, which is connected by means of a link 25 to a hook 26 upon the outer end of the vertically adjustable member 3, the inner end of the horn being connected to the reproducer or recorder of the phonograph 45 by means of a flexible connection 27.

The operation of the device will be evident without further description.

I claim—

1. In a device of the class described, the 50 combination of a clamping device adapted to be held in place by the cover latch of a phonograph cabinet and a vertically adjustable horn support carried by the said clamping device, provided with eccentric means 55 for positively holding the support in any position to which it may be adjusted, and releasable by finger pressure, substantially as set forth.

2. In a device of the class described, the 60 combination of a support, a quadrant plate horizontally adjustable on said support, a vertically adjustable member mounted on the said plate, and a locking means for and carried by said member coacting with said 65 plate, so mounted on said member as to jam

against said plate in descending, substantially as set forth.

3. In a device of the class described, the combination of a supporting member, a rod 70 pivoted thereto upon a horizontal axis and an eccentrically pivoted spring actuated cam pawl for adjustably and positively holding the said rod in relation to the said support, substantially as set forth.

4. In a device of the class described, the 75 combination of a clamping device adapted to be held in place by the cover latch of a phonograph cabinet, a supporting member rotatable upon a vertical axis on said device, a supporting rod pivoted thereto upon 80 a horizontal axis, and means for maintaining the said rod in adjusted positions with relation to said supporting member, substantially as set forth.

5. In a device of the class described, the 85 combination of a clamping member provided with a cross head and with a perforated downwardly extending tongue adapted to extend through the cover slot in a phonograph cabinet and to be held therein 90 by the cover latch, a supporting member rotatably mounted upon a vertical pivot upon said clamping member, a vertically adjustable horn support mounted on a horizontal pivot on said supporting member, and a lever 95 cam device actuated by the downward movement of the horn support to pivotally lock the latter, and releasable by upward pressure on the tail of the cam substantially 100 as set forth.

6. In a device of the class described, an integral clamping member comprising a cross-head formed of a downwardly extending 105 portion at one end thereof and with downwardly extending resilient means at the other end thereof, said downwardly extending portion and means adapted to bear upon a phonograph cabinet, and a downwardly 110 extending tongue having a perforation adapted to receive the cover latch of a phonograph cabinet, and means for adjusting said resilient means to and from said cross-head, and universally adjustable horn 115 supporting means upon said clamping member substantially as set forth.

7. In a device of the class described, the combination of a clamping member adapted to be held with respect to a phonograph cabinet by means of the cover latch thereof, a supporting plate pivoted to said clamping 120 member upon a vertical pivot and having a face of the form of the quadrant of a circle, and a supporting rod pivoted to said supporting member upon a horizontal pivot at the center of said quadrant and having a 125 spring actuated pawl thereon, coöperating with the said curved face of the said supporting member, to hold the supporting rod in adjusted position thereon, substantially 130 as set forth.

8. In a device of the class described, a quadrant plate adjustable about a vertical axis, a horizontal stud carried thereby, a bifurcated supporting arm pivoted on said stud, and a cam device carried by said arm and coöperating with said plate to form a positive lock for adjustably holding said arm in any vertical position, substantially as set forth.
- 10 9. In a device of the class described, the combination of a supporting member rotatable upon a vertical axis, a supporting rod pivoted thereto upon a horizontal axis and a pawl pivoted thereto, said pawl having a cam surface and said member having a curved surface upon which said pawl is adapted to bear for adjustably holding the said rod in relation to the said support, substantially as set forth.
- This specification signed and witnessed this 10th day of May 1907.
- EDWARD L. AIKEN.
- Witnesses:
H. H. DYKE,
FRANK D. LEWIS.