No. 787,264. PATENTED APR. 11, 1905.

J. E. BEATTY.

TALKING MACHINE.

APPLICATION FILED MAR. 31, 1904.

2 SHEETS—SHEET 1.

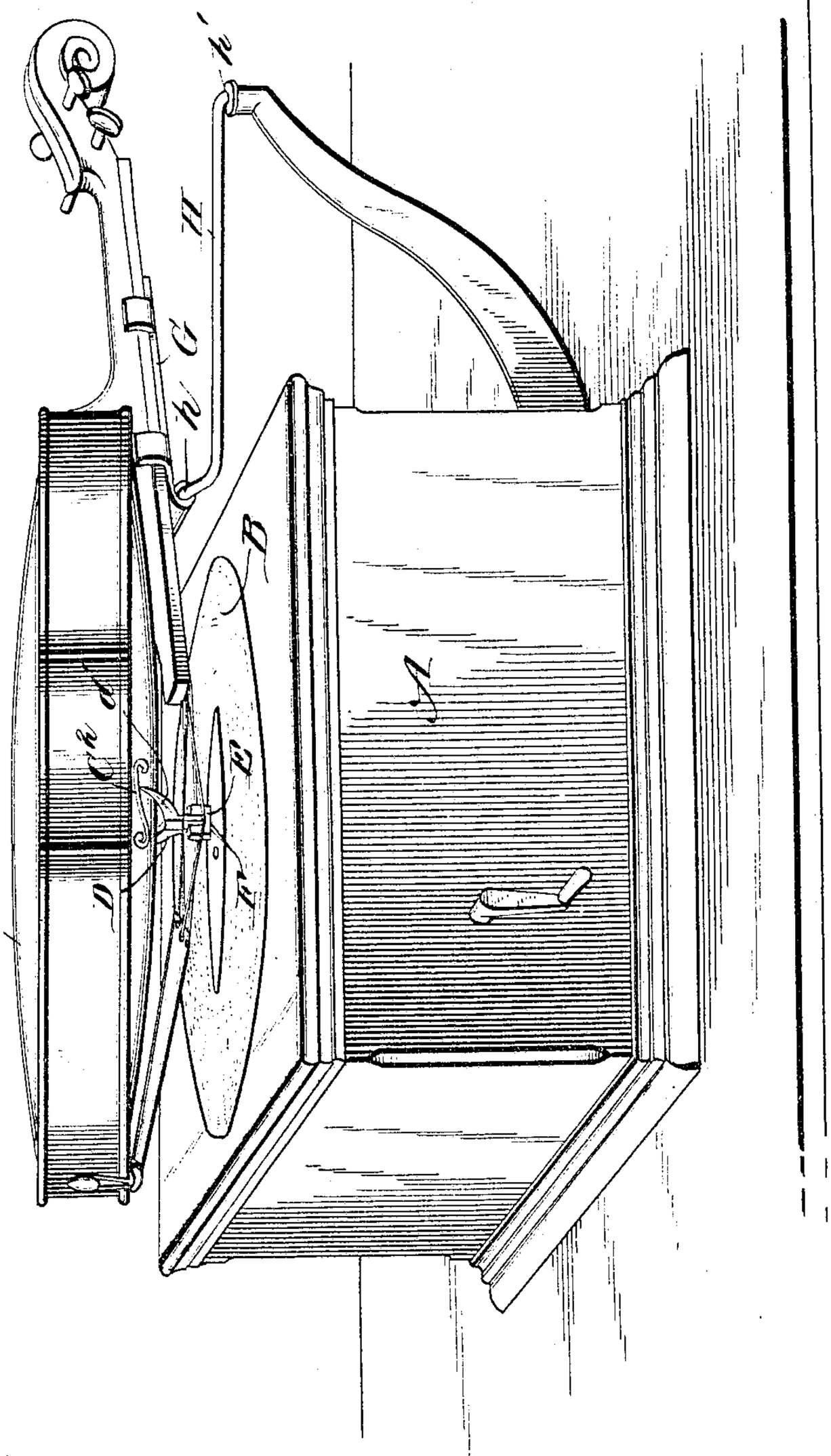

Fig. 1.

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INVENTOR

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BY Munn & Co.

ATTORNEYS

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2 SHEETS—SHEET 2.

Fig. 2.

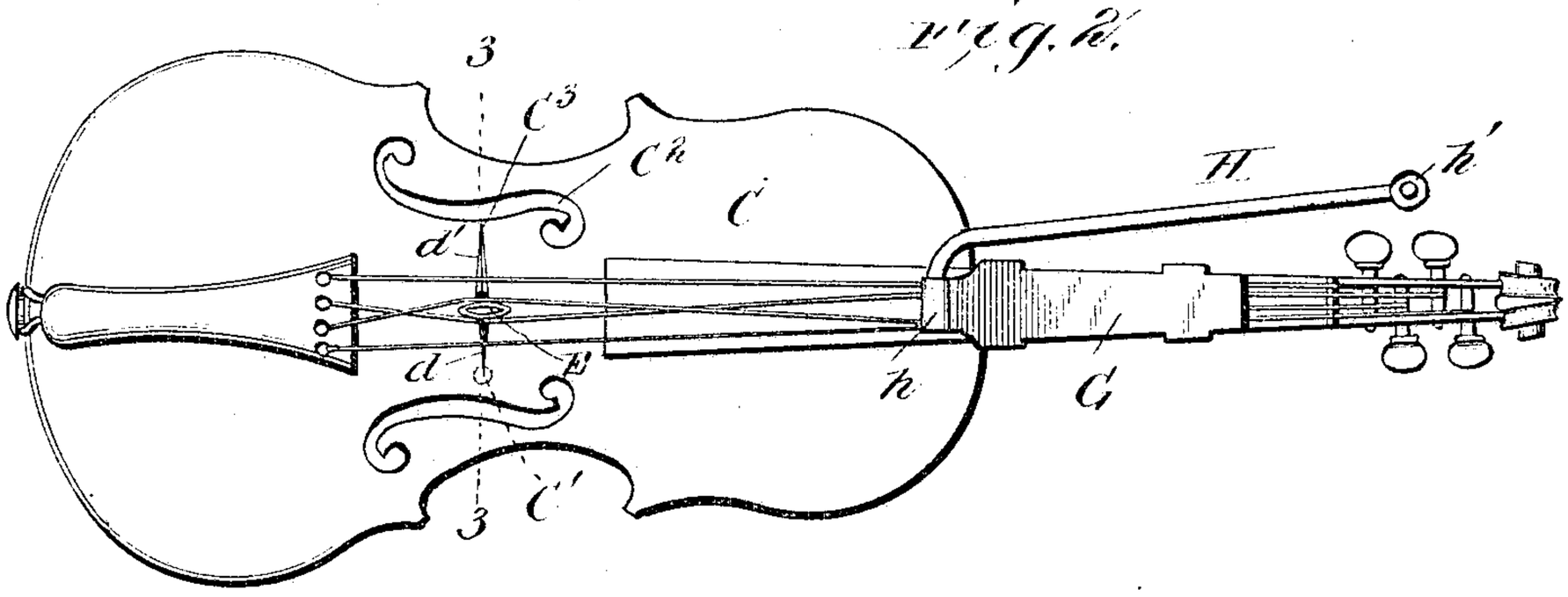

Fig. 3.

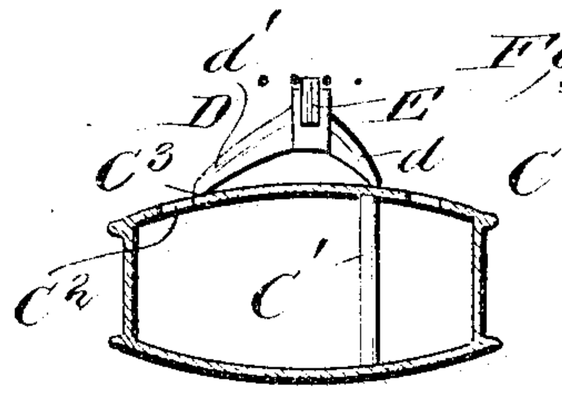

Fig. 4.

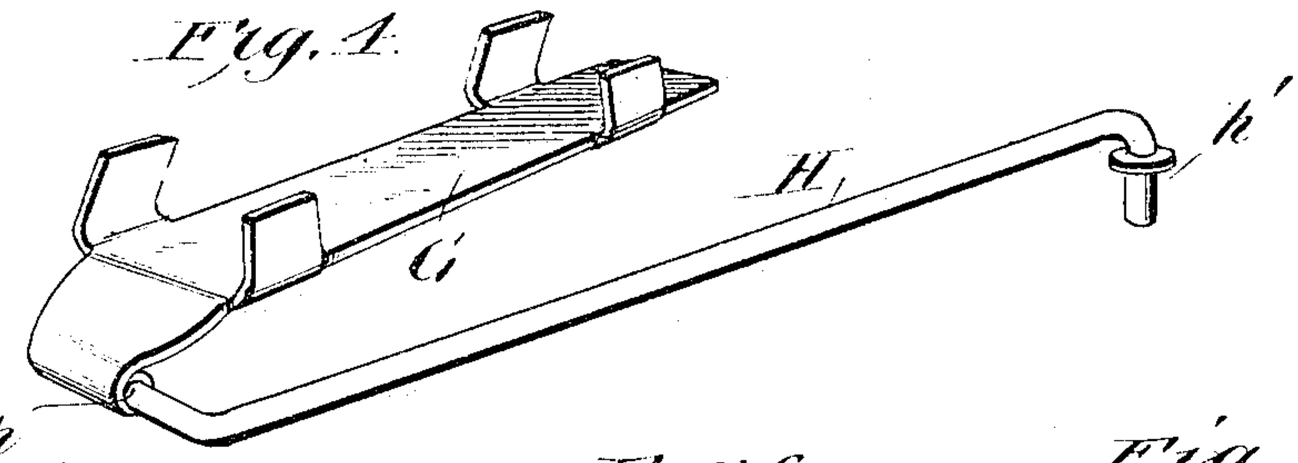

Fig. 5.

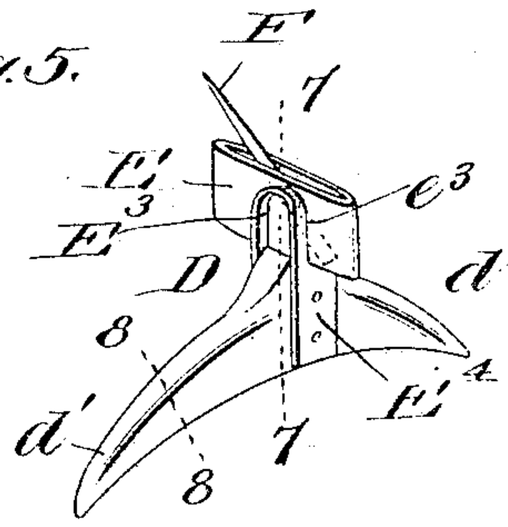

Fig. 6.

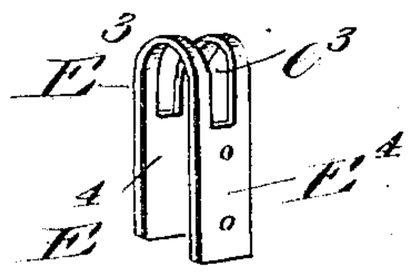

Fig. 7.

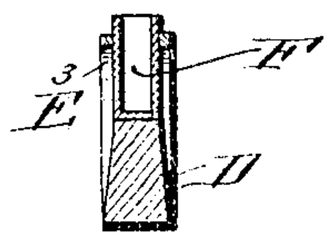

Fig. 8.

WITNESSES:

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No. 787,264. Patented April 11, 1905.

UNITED STATES PATENT OFFICE.

JOSEPH E. BEATTY, OF HUNTINGDON, PENNSYLVANIA.

TALKING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 787,264, dated April 11, 1905.

Application filed March 31, 1904. Serial No. 200,967.

To all whom it may concern:

Be it known that I, JOSEPH ELLIOTT BEATTY, a citizen of the United States, and a resident of Huntingdon, in the county of Huntingdon and State of Pennsylvania, have made certain new and useful Improvements in Talking-Machines, of which the following is a specification.

My invention is an improvement in talking-machines, being in the nature of an attachment for use on talking-machines, especially relating to the employment of a violin as a sound-box or reproducer by turning such instrument upside down and employing a special form of bridge carrying the needle or stylus which operates in the record; and the invention consists in certain novel constructions and combinations of parts, as will be hereinafter described and claimed.

In the drawings, Figure 1 is a perspective view of the apparatus as in use. Fig. 2 is a face view of the violin with the bridge and needle or stylus holder in place. Fig. 3 is a cross-section on about line 3 3 of Fig. 2. Fig. 4 is a perspective view of the holder. Fig. 5 is a detail perspective view of the needle-holder and bridge. Fig. 6 is a perspective view of the clevis for securing the needle-holder. Fig. 7 is a cross-section of the bridge and holder, the needle being removed on about line 7.7 of Fig. 5, and Fig. 8 is a detail cross-section on about line 8 8 of Fig. 5.

The motor may be of ordinary form and arranged in a box A, as shown, and the record B may be of the ordinary construction, that shown being a disk record revolving about a vertical axis.

The violin C may be an ordinary violin having a sounding-post C′ and having on the opposite side of its center from the sounding-post C′ the scroll C^2, which may be cut out, leaving a thin flange at C^3, upon which rests one end of the bridge D, which latter carries the holder for the needle or stylus. This bridge D is of a special construction, being provided with the holder E at a point between its ends, having at one end or on one side of the holder the short arm *d* and having on the opposite side of the holder the relatively longer arm *d′*, the latter resting upon the scroll of the violin and the former, *d*, resting approximately over the sounding-post, so the vibrations transmitted to the bridge from the record will be imparted to the long arm *d′* of the bridge and will be transmitted thence to the violin. I thus impart the vibrations to the violin by one end of the bridge, transmitting the vibrations to the thin scroll on one side of the instrument, and the sound-waves spreading from that part of the instrument throughout the violin. This is important, as by arranging the bridge to transmit the vibrations to one side of the violin or from one end only of the bridge I avoid any interference of sound-waves such as might result from transmitting the vibrations from both ends of the bridge to the body of the violin. For securing the holder to the bridge I prefer to employ the clevis E^3, (shown in Fig. 6,) being a plate bent into U form, slotted in its crown at e^3 to receive the holder E, and having the depending legs E^4, which extend on opposite sides of and are secured to the bridge, as shown in Fig. 5 of the drawings. In practice I locate the point of the needle in about the line where the bow acts upon the strings of the violin as ordinarily played.

The holder E for the needle or stylus is elongated in a direction at a right angle to the direction of the length of the bridge and stands thus at a right angle to the bridge, being secured at its middle to the bridge, so it will project equally on opposite sides of the bridge in order that the needle may occupy the same relation to the bridge when adjacent to one end or the other of the holder in the use of the invention. This holder is of a special construction, being widened at its middle and tapering thence toward its opposite ends, so that if the needle F be placed in the holder and rocked thence toward one or the other end of the holder the point of the needle will be clamped in the outer end of the holder at one side of the latter, while the butt of the needle will be clamped at the inner end of the holder at the opposite side of such holder, so that the needle may be clamped both at its inner and outer ends, and thus held firmly in place, so it can be conveniently reversed, being held at either side of the holder, and being when so held set at the proper angle or slant

necessary for use on the records of talking-machines. By providing this novel construction for reversing the needle in its holder the needle after being used on one side of a record can be reversed in its holder and the reproducer then shifted to the opposite side of the center of the record, thus providing a fresh point for use, as will be understood by those skilled in the art. I prefer this form of holder because it enables me to secure the needle or stylus without the intervention of separate clamping devices therefor, the holder being so formed as to secure and clamp the needle in the use of the invention.

For securing the violin I employ a holder comprising a body G, which has at one side a receiver for the neck of the violin, such receiver being tapered longitudinally to conform to the taper of the violin-neck and undercut transversely, so it will grip the neck of the violin when pushed down thereon toward the body of the instrument, as will be understood from the drawings. A swinging rod H is pivoted at one end to the violin-holder at *h* and at its other end at *h'* to the bracket A, which extends from the motor-box, so the violin may rock slightly up and down at *h* and may swing at *h'* in following the record of the talking-machine.

In securing the bridge I may employ a single spring leading from the needle-holder toward the neck and tailpiece of the violin, or I may secure such bridge by the ordinary violin-strings, so the violin can be removed from the talking-machine, a violin-bridge applied, and the instrument be played in the ordinary manner.

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

1. The combination of a talking-machine, a violin having a sounding-post and a scroll on the opposite side of the instrument from said post, the bridge provided between its ends with a needle-holder elongated transversely the direction of length of the bridge and tapering toward both ends whereby to clamp the needle or stylus when the same is rocked therein, the needle or stylus in said holder and arranged to be reversed from end to end therein, the said holder being located relatively nearer one end of the bridge whereby the bridge is formed with a short arm resting approximately over the sounding-post of the violin and with a relatively longer arm resting upon the scroll at the opposite side of the instrument from said sounding-post, the violin-holder having a receiver for the neck of the violin, said receiver being tapered longitudinally and undercut transversely to properly grip the violin-neck, the swinging rod pivoted at one end to the violin-holder, and the bracket on the talking-machine to which the other end of the swinging rod is pivoted substantially as set forth.

2. A reproducer for talking-machines comprising a violin, a bridge thereon and a needle or stylus carried by the bridge to operate in connection with a talking-machine record.

3. In a reproducer for talking-machines, a bridge provided between its ends with a needle-holder, the latter being located to one side of the middle of the bridge whereby the bridge is formed with a short arm at one end and with a relatively longer arm at the other end substantially as set forth.

4. The combination in an attachment for talking-machines with a violin having a sounding-post at one side of its center, and a scroll at the opposite side of such center of a bridge provided at one side of its middle with a holder for the needle or stylus whereby there is provided a short arm at one end of the bridge resting over the sounding-post of the violin and a relatively longer arm at the other end of the bridge resting upon the scroll opposite the sounding-post to transmit vibrations thereto in the operation of the device substantially as described.

5. In a reproducer for talking-machines a bridge provided between its ends with a needle-holder which is elongated in a direction at a right angle to the direction of length of the bridge substantially as described.

6. A bridge for talking-machines provided between its ends with a needle-holder arranged at a right angle to the direction of length of the bridge and located to one side of the middle of the bridge whereby the bridge is formed with a short arm at one end and with a relatively longer arm at the other end substantially as set forth.

7. In an attachment for talking-machines, a holder for a violin comprising the body portion having a seat for the neck of the violin, such seat being tapered longitudinally and undercut transversely, and a swinging rod pivoted to one end of the said body substantially as set forth.

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Witnesses:
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PERRY B. TURPIN.