

No. 743,858.

PATENTED NOV. 10, 1903.

H. A. GAUTSCHI.
PHONOGRAPHIC ATTACHMENT FOR MUSIC BOXES.

APPLICATION FILED JAN. 5, 1903.

NO MODEL.

Fig. 1.

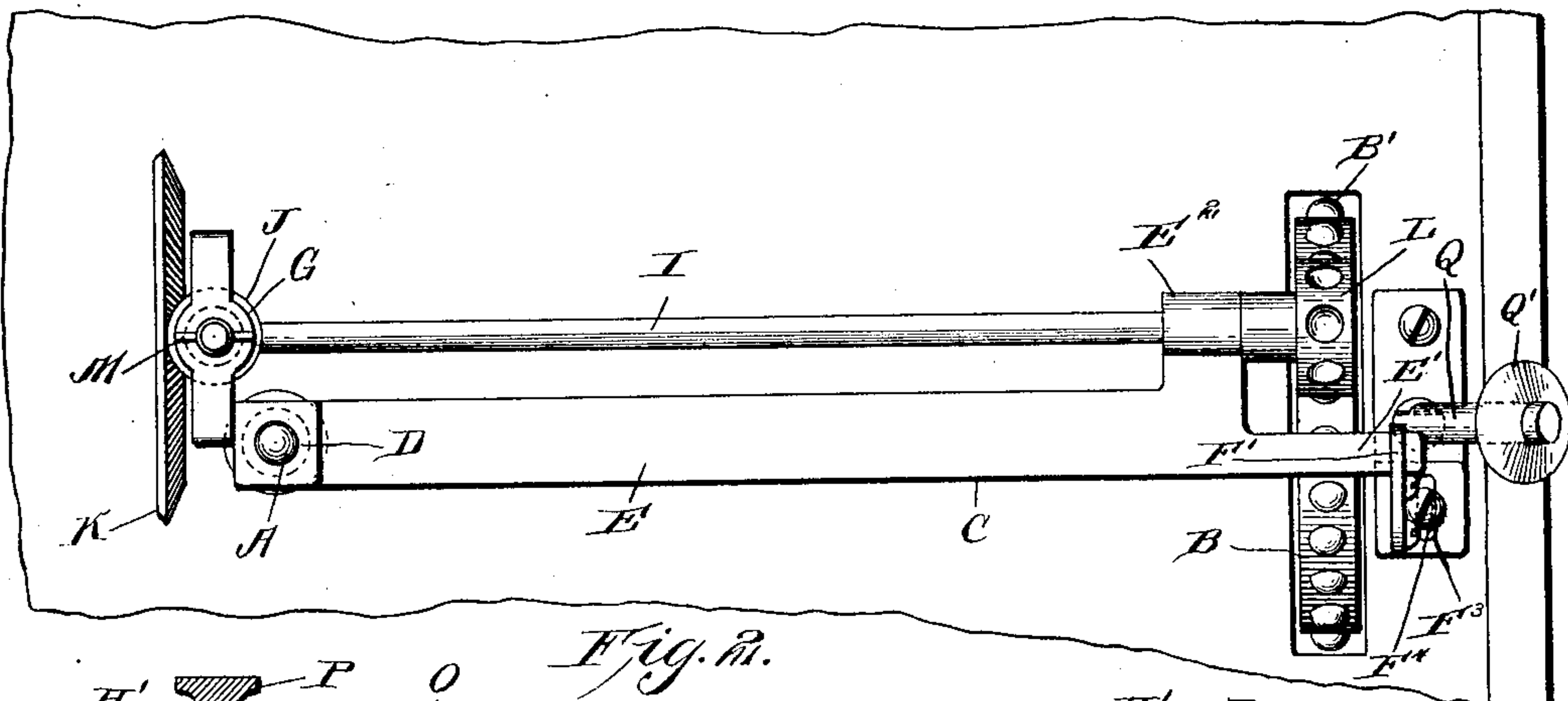


Fig. 2.

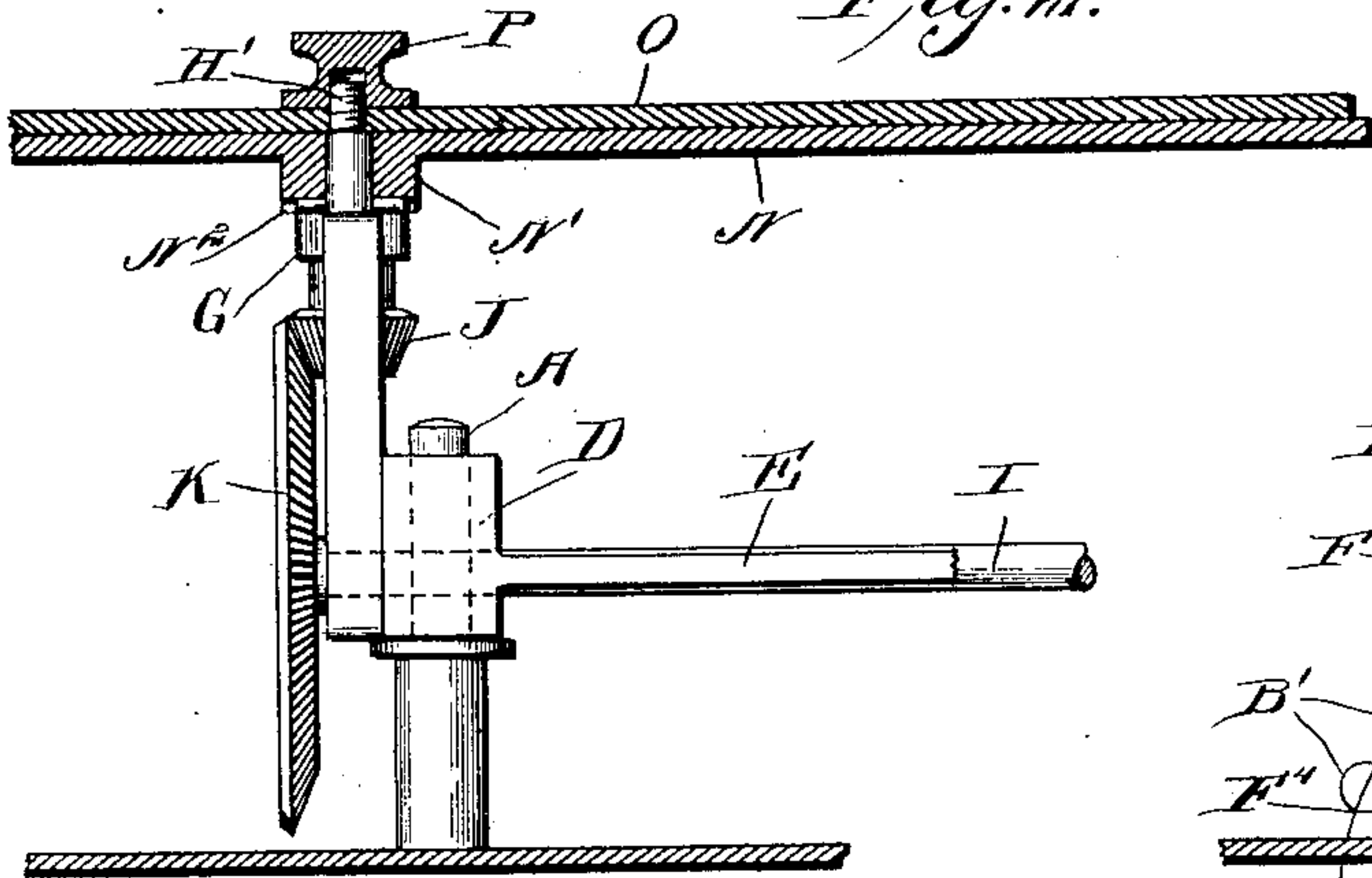


Fig. 3.

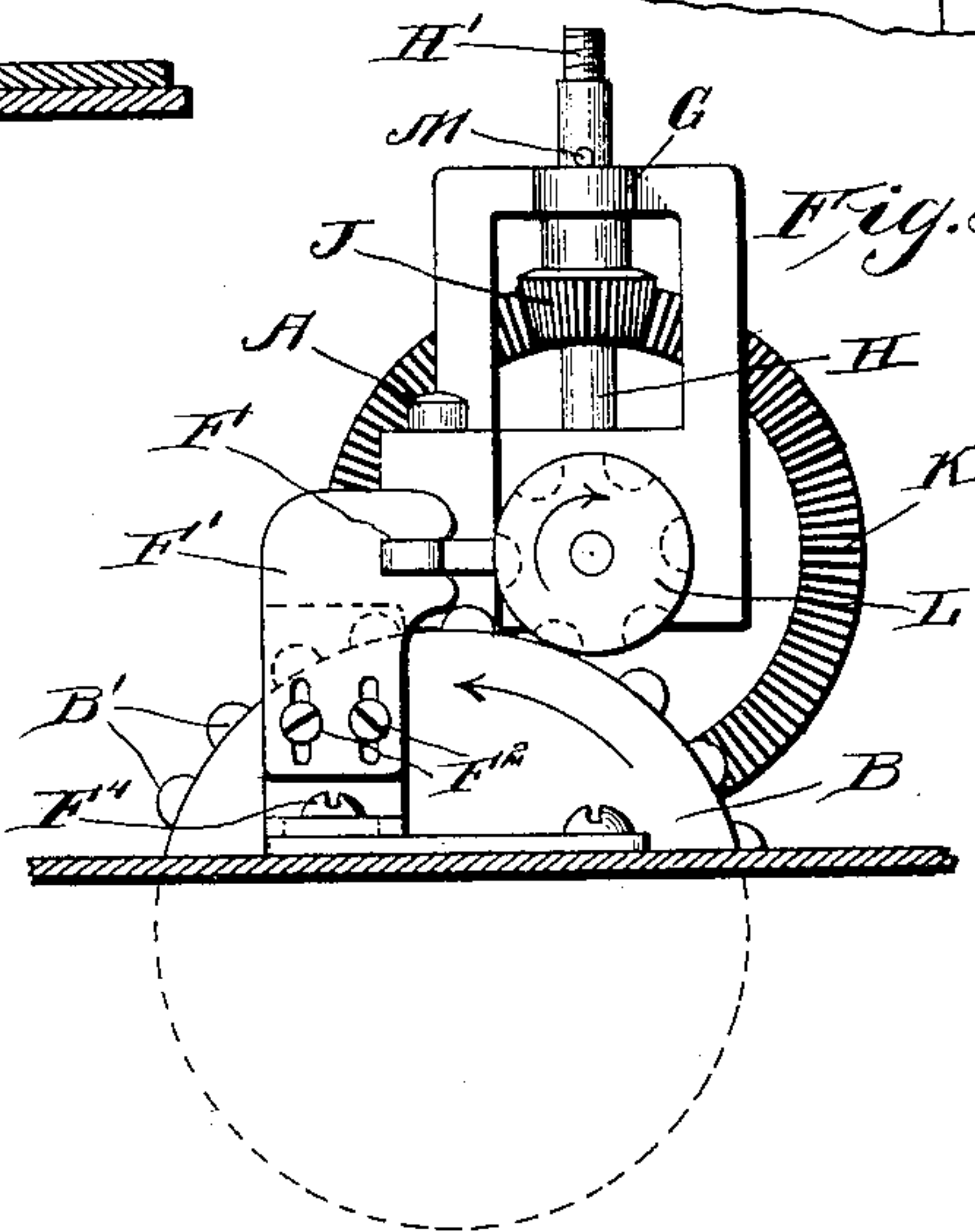
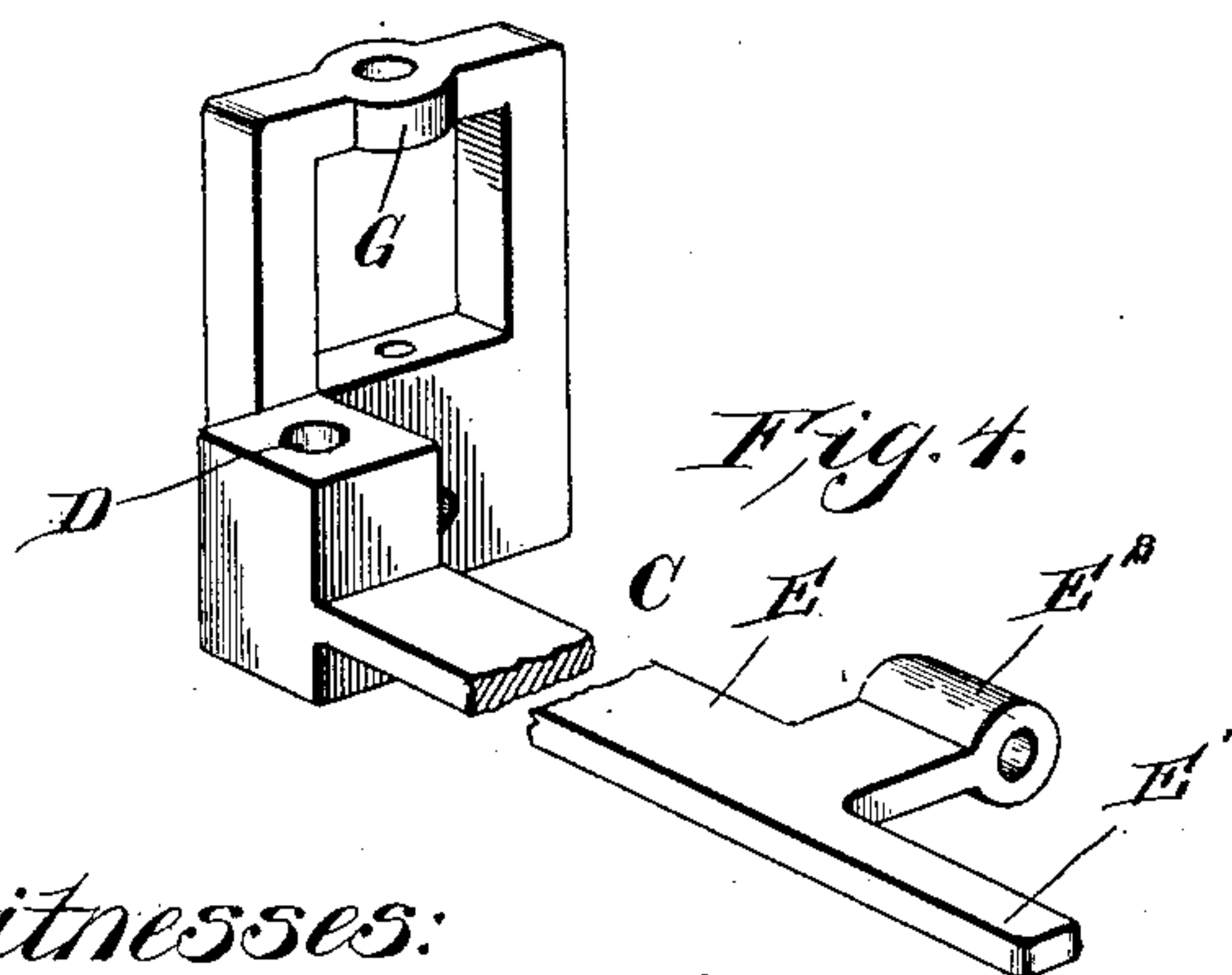


Fig. 4.



Witnesses:

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PHONOGRAPHIC ATTACHMENT FOR MUSIC-BOXES.

SPECIFICATION forming part of Letters Patent No. 743,858, dated November 10, 1903.

Application filed January 5, 1903. Serial No. 137,846. (No model.)

To all whom it may concern:

Be it known that I, HENRY A. GAUTSCHI, a citizen of the United States, residing at Philadelphia, county of Philadelphia, and State of Pennsylvania, have invented a certain new and useful Improvement in Phonographic Attachments for Music-Boxes, of which the following is a specification.

My invention relates to a new and useful improvement in phonographic attachments for music-boxes, the phonographic attachment to be attached to that class of music-boxes in which the sound is reproduced from a record in the form of a disk, which disk is revolved from its outer edge by means of a suitable driving-wheel meshing with perforations around the periphery of said disk.

With these ends in view this invention consists in the details of construction and combination of elements hereinafter set forth and then specifically designated by the claims.

In order that those skilled in the art to which this invention appertains may understand how to make and use the same, the construction and operation will now be described in detail, referring to the accompanying drawings, forming a part of this specification, in which—

Figure 1 represents a plan view of a portion of a music-box with my attachment applied thereto; Fig. 2, a vertical sectional view of a portion of my attachment applied to the central spindle of the music-box. Fig. 3 is an end view of the driving-wheel of the music-box, showing my attachment operating in connection therewith; Fig. 4, a perspective view of the framework of my attachment, a portion of the same being broken away, so as to shorten the same and take up any unnecessary room upon the sheet.

In music-boxes to which this attachment is adapted the disk record is mounted upon a central spindle loosely and is driven by a driving-wheel meshing with perforations around the periphery of the disk, this driving-wheel being rotated by a spring-motor.

In the drawings, A represents the central spindle, upon which the usual music-record is mounted and upon which is also mounted one end of a shaft carrying the usual contact-rolls

for holding the record in position, so that the vibrating tongue of the music-box will be properly actuated.

B represents the driving-wheel of the music-box, which is provided upon its periphery with teeth or knobs adapted to mesh with perforations formed in the disk, around the periphery of the same.

C represents the framework of my attachment, which is provided with a vertical socket D, adapted to fit loosely over the spindle A. Extending outward from this socket is a horizontal bar E, which extends toward the driving-wheel B, and the outer end E' of this horizontal bar is adapted to fit within a notch F, formed in a standard F', which standard is secured to the framework of the music-box outside of the driving-wheel. This standard is made vertically adjustable at the point F², and the foot of the standard is slotted, as indicated at F³, through which the screw F⁴ passes to secure said standard to the frame of the music-box, and thus the standard is also adjustable horizontally. Formed with the framework at the other side of the socket D is a vertical bearing G, in which a spindle H is stepped, and directly below this vertical spindle H a bearing is formed in which one end of a horizontal shaft I is journaled. This shaft runs parallel with the bar E, and the other end of the shaft is journaled in a bearing E², formed with said bar. The spindle H has secured thereon a small beveled wheel J, which meshes with a large beveled wheel K, secured upon the inner end of the shaft I. Secured upon the outer end of the shaft I is a wheel L, which has provided in its periphery openings corresponding to and adapted to receive the teeth or knobs B' upon the driving-wheel B. Thus the shaft I is rotated from the driving-wheel, which in turn rotates the beveled wheel K, and thus transmits motion through the beveled wheel J to the spindle H.

M is a pin extending transversely through the spindle H above the bearing G.

N is a circular plate provided with a central boss N', and this plate is adapted to fit over the upper end of the spindle H, and the lower face of the boss N' is slotted, as indicated at N², so as to fit over the pin M, and

thus the plate N is rotated with the spindle H. The upper end of the spindle H is screw-threaded, as indicated at H', and the phonographic record in the shape of a disk O is centrally mounted upon the spindle H and fits over the plate N. A thumb-nut P is then threaded upon the upper end of the spindle, binding the record O in tight contact with the plate N, thus causing the record to revolve with the plate and spindle.

In attaching my attachment to music-boxes the shaft Q, upon which the contact-rollers Q' are mounted, is disengaged at one end from the spindle A and is thrown back out of the way, as the other end of the shaft Q is pivoted to a standard arising from the framework of the music-box. Then the musical record is removed from the spindle A, and the music-box is then in condition to receive my attachment, which is attached by simply slipping the socket D upon the central spindle A and fitting the end E' of the bar E within the notch F of the standard F', the standard being adjusted either vertically or horizontally, so as to bring the wheel L in proper mesh with the driving-wheel B. The apparatus is then in condition to be used as a phonograph, it being understood that the sound-box and horn are adapted to be attached to the framework of the music-box, and this being the ordinary construction it does not form any part of my invention, and I also do not claim the manner of securing the phonographic record in place, as my invention consists chiefly in removable means for changing the music-box into a phonograph, and thereby utilizing the spring-motor of the music-box for operating said phonograph.

It will be understood that it is not necessary to secure the end E' of the bar within the notch of the standard F', as the direction of rotation of the wheel L will tend to always hold the bar within the notch F.

In different machines the driving-wheels B are formed with different-shaped teeth than those shown in the drawings, and of course then my wheel L would be formed with indentations around its periphery to correspond with the shape of such teeth, and thus my attachment could be applied to all music-boxes of this character, it simply being necessary to change the wheel L for different makes of boxes.

The great advantage of my invention is that I am enabled to provide two instruments in one at only a slight increase in cost, and as the music-box motors are considerably stronger than the ordinary motors used in phonographs I therefore have the advantage of the use of a motor which does not have to be wound each time a new phonographic record is placed upon the machine.

Of course I do not wish to be limited to the exact construction here shown, as slight

modifications could be made without departing from the spirit of my invention.

Having thus fully described my invention, what I claim as new and useful is—

1. In a phonographic attachment for music-boxes, the combination of the central spindle and driving-wheel of the music-box with a framework journaled loosely upon said central spindle, a shaft journaled horizontally within said framework, a wheel secured to one end of said shaft and meshing with the driving-wheel of the music-box, an upright spindle journaled in the framework upon which the phonographic record is adapted to be secured, and means for driving said upright spindle from the horizontal shaft, as and for the purpose specified.

2. In a phonographic attachment for music-boxes, the combination of the central spindle and driving-wheel of the music-box with a framework mounted loosely upon said central spindle, a horizontal shaft journaled within the framework, a wheel secured upon one end of the shaft meshing with a driving-wheel of the music-box, adjustable means for holding the free end of the framework in such a position as to hold the driving-wheel in the proper relation and mesh to the driven wheel, a vertical spindle journaled in the framework upon which the phonographic record is adapted to be secured, a beveled wheel secured to said vertical spindle, a beveled wheel mounted upon the outer end of the horizontal shaft and meshing with the beveled wheel upon the vertical spindle, as and for the purpose specified.

3. In a phonographic attachment for music-boxes, the combination of the central spindle and driving-wheel of the music-box with a detachable framework adapted to be loosely mounted at one end upon the central spindle, a standard arising from the framework of the music-box outside of the driving-wheel, said standard being provided with a notch into which the outer end of the framework is adapted to fit, means for adjusting said standard vertically and horizontally, a horizontal shaft journaled in a framework, a wheel secured to the outer end of said horizontal shaft meshing with the driving-wheel of the music-box, a vertical spindle journaled within the framework near the central spindle of the music-box, a small beveled wheel secured upon said vertical spindle, a larger beveled wheel secured upon the inner end of the horizontal shaft and meshing with the beveled wheel upon the vertical spindle, as and for the purpose specified.

In testimony whereof I have hereunto affixed my signature in the presence of two subscribing witnesses.

HENRY A. GAUTSCHI.

Witnesses:

MARY E. HAMER,
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