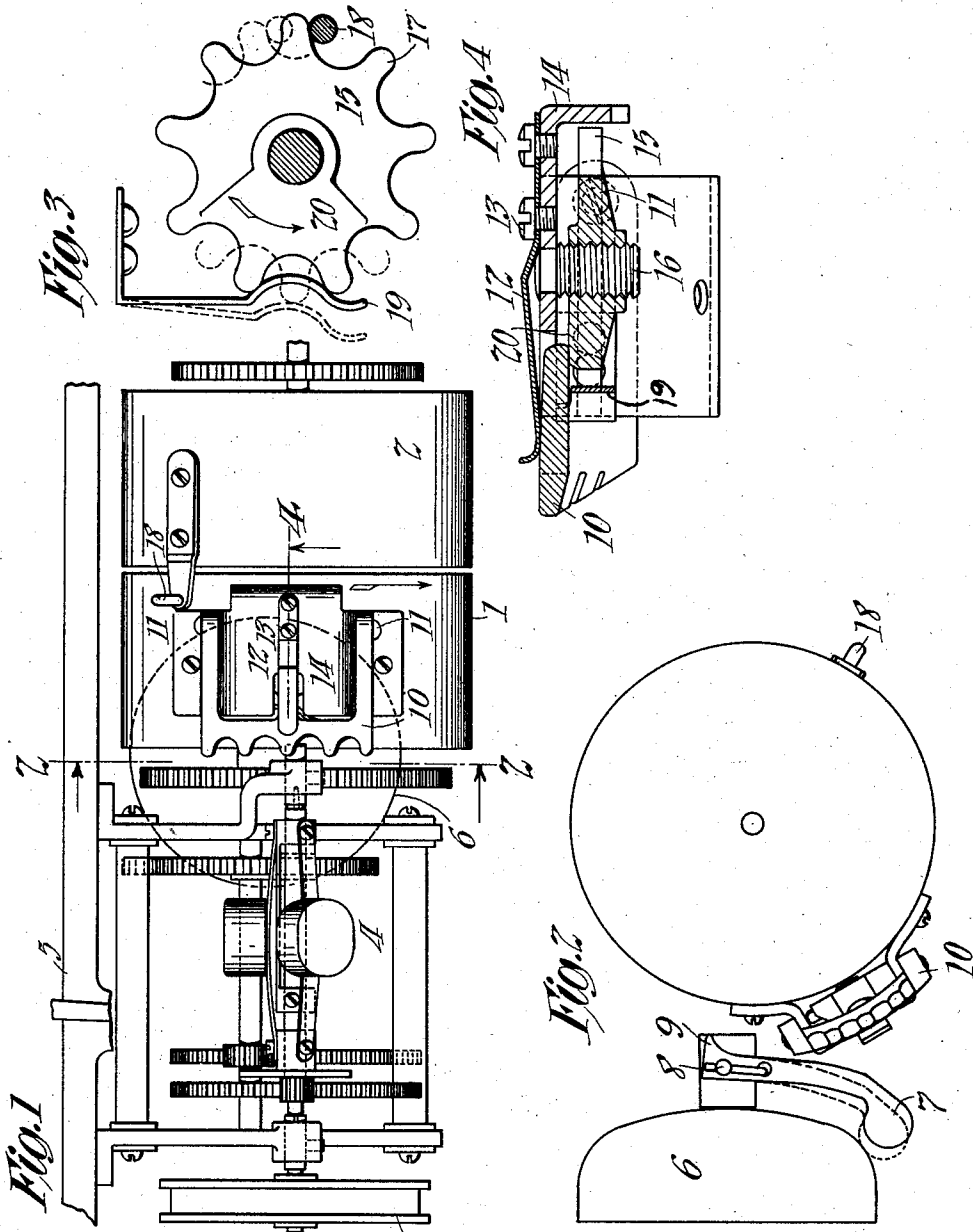


C. SCHIFFL.
 PHONOGRAPH MOTOR SIGNALING DEVICE.
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1,027,774.

Patented May 28, 1912.



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UNITED STATES PATENT OFFICE.

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PHONOGRAPH-MOTOR-SIGNALING DEVICE.

1,027,774.

Specification of Letters Patent.

Patented May 28, 1912.

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To all whom it may concern:

Be it known that I, CHARLES SCHIFFL, a citizen of the United States, and a resident of West Orange, in the county of Essex and State of New Jersey, have made a certain new and useful Invention in Phonograph-Motor-Signaling Devices, of which the following is a description.

My invention relates to a phonograph motor signaling device, and the object of the said invention is to provide a simple, novel and efficient means for sounding a signal when a spring motor, as the usual spring motor employed in a phonograph has run down or nearly run down, the signal being sounded for the purpose of calling to the operator's attention the fact that the motor requires rewinding. This is particularly desirable in such forms of phonographs as employ spring motors and are used for the purpose of dictation.

Other objects of my invention consist in the combinations of parts and details of construction hereinafter set forth, and particularly claimed in the appended claims.

Referring to the accompanying drawings, forming part of this specification, and which illustrate one form of apparatus embodying my invention, Figure 1 represents a side elevation of a phonograph spring motor with the usual gearing, governor, and other connected parts, the said motor being provided with my invention; Fig. 2 is an end view of the spring barrel, bell and sounding device looking in the direction of the arrow from line 2—2 in Fig. 1; Fig. 3 is a detail showing the wheel employed for moving the signal sounding means into position at the proper time, and Fig. 4 is a section on line 4—4 in Fig. 1.

In all the above figures, the same reference characters are used throughout to denote corresponding parts.

Referring to the drawings, the spring motor comprises two barrels, barrel 1 which is movable, and barrel 2 which is stationary. The pulley 3, which is adapted to rotate the phonograph mandrel and feed screw by means of a suitable belt, and governor 4, are rotated by means of the gearing and shafts shown from the movable spring barrel 1, all of these parts being of a well known character. The parts enumerated are sup-

ported from the frame 5 in any desired manner.

The bell 6 is provided as a suitable sounding device, the said bell being provided with a hammer or tongue 7, which is pivotally mounted at 8 and provided with the nose 9, which is adapted to be repeatedly contacted by the teeth of the comb plate 10, which is carried by the movable spring barrel 1. The comb plate 10 is pivoted or hinged as shown at 11 at its rear edge, the teeth of the comb plate 10 normally not being in position to contact the nose 9 of tongue 7. The pivoted comb plate 10 is normally held in its position by means of leaf spring 12 which is held in position at one end by screws 13 to the frame 14, as shown.

Means are provided for moving the comb plate about pivot 11 in such a manner that the teeth thereof will contact the nose 9 of the striker 7 to vibrate the same and ring the bell at the predetermined point in the unwinding of the spring barrel 1. Various means may be employed, as, for example, a rotatable member may be mounted on the spring barrel to contact the comb plate 10, this rotatable member being moved through one increment each revolution of the spring barrel by contacting a stationary member, this step-by-step revolution of the rotatable member serving to cam or otherwise turn the comb plate 10 about its pivot and hold it against the tension of spring 12 until comb plate 10 is brought into position to contact nose 9 of hammer 7 in the revolution of the spring drum.

As shown in the drawings, I prefer to employ a rotatable wheel 15, which is mounted as a nut upon the stationary screw 16 which is secured in position in the frame 14. The wheel 15 is provided with teeth 17 which are adapted to be contacted in the revolution of barrel 1 by the pin 18, which is secured to the stationary barrel 2 in such position that as the wheel 15 is carried by the same on each revolution of the spring barrel 1, the wheel 15 will be rotated one tooth by pin 18. The spring 19 is secured to the frame 14 and contacts the teeth of wheel 15 to prevent overthrow of the same. The result of this construction is that as the spring barrel unwinds in the operation of the motor, the nut or wheel 15 is rotated step by step about the

screw 16 in such a direction as to rise axially of the screw 16, the upper surface of wheel 15 contacting the lower surface of comb plate 10 in such a manner as to gradually raise the same until the teeth of comb plate 10 are brought into the same plane with nose 9 of the bell striker 7 at the predetermined point. When the spring motor is again wound, spring barrel 1 revolves in the opposite direction, wheel 15 being rotated in the opposite direction step by step by pin 18, the wheel 15 descending along the screw 16 and permitting comb plate 10 to again recede to its former position in which it is unable to contact nose 9. Raised bearing surface 20 is preferably provided on the upper surface of wheel 15 covering one segment thereof and contacting the lower surface of comb plate 10 during the movement of wheel 15.

It will be obvious that my invention is not limited to the precise construction described, but that various modifications and equivalent constructions may be used within the scope of the appended claims and within the spirit of my invention. It is only necessary that the unwinding of the spring barrel cause the movement of an actuating means into position, at a predetermined point, to sound the signal.

Having now described my invention, what I claim and desire to protect by Letters Patent is as follows:

1. In a device of the character described, the combination with a rotatable spring barrel and a signaling device, of means carried by said barrel for sounding said signal at a predetermined point in the rotation of said barrel in one direction, and stationary means coacting with said sounding means in its rotation to force the latter into position to sound said signal at the said point, substantially as described.

2. In a device of the character described, the combination with a rotatable spring barrel and a stationary signaling device, of means carried by said barrel normally not in position to contact and actuate said signaling device, and means coacting with said first named means in its progression with the rotating barrel to move it gradually toward contacting position, and into such position at a predetermined point in the rotation of said barrel in one direction, substantially as described.

3. In a device of the character described, the combination with a rotatable spring barrel and a signaling device provided with a vibratory actuating member, of means for vibrating said member normally not in posi-

tion to actuate the same, and means actuated by the rotation of the barrel in one direction to cause the said vibratory member and actuating means to be brought into coacting position at a predetermined point in the rotation of said barrel, to sound said signal, substantially as described.

4. In a device of the character described, the combination with a rotatable spring barrel and a stationary signaling device provided with a sounding member, of a pivoted member carrier by said barrel having a portion adapted to coact with said sounding member, and means actuated at each rotation of the barrel in one direction to move said pivoted member about its pivot so that its said portion travels in a path approaching the locus of said sounding member and at a predetermined point intersecting the same, to actuate the signal, substantially as described.

5. In a device of the character described, the combination with a rotatable spring barrel and a stationary signaling device provided with a sounding member, of a pivoted member carried by said barrel having a portion adapted to coact with said sounding member, a rotatable member carried by said barrel and adapted in its rotation to coact with said pivoted member to force the latter into position to coact with said sounding member, and means coacting with said rotatable member at each rotation of the barrel in one direction to revolve the same and cause it to move toward its signal actuating position, substantially as described.

6. In a device of the character described, the combination with a rotatable spring barrel and a stationary signaling device provided with a sounding member, of a pivoted member carried by said barrel having a portion adapted to coact with said sounding member, a screw carried by said barrel, a nut mounted on said screw, and means co-acting with said nut at each rotation of the barrel to revolve it somewhat about said screw, said nut being mounted to contact said pivoted member and force the latter about its pivot toward signal operating position during the rotation of the barrel in one direction, substantially as described.

This specification signed and witnessed this 10th day of June 1909.

CHARLES SCHIFFL.

Witnesses:

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JOHN M. CANFIELD.