

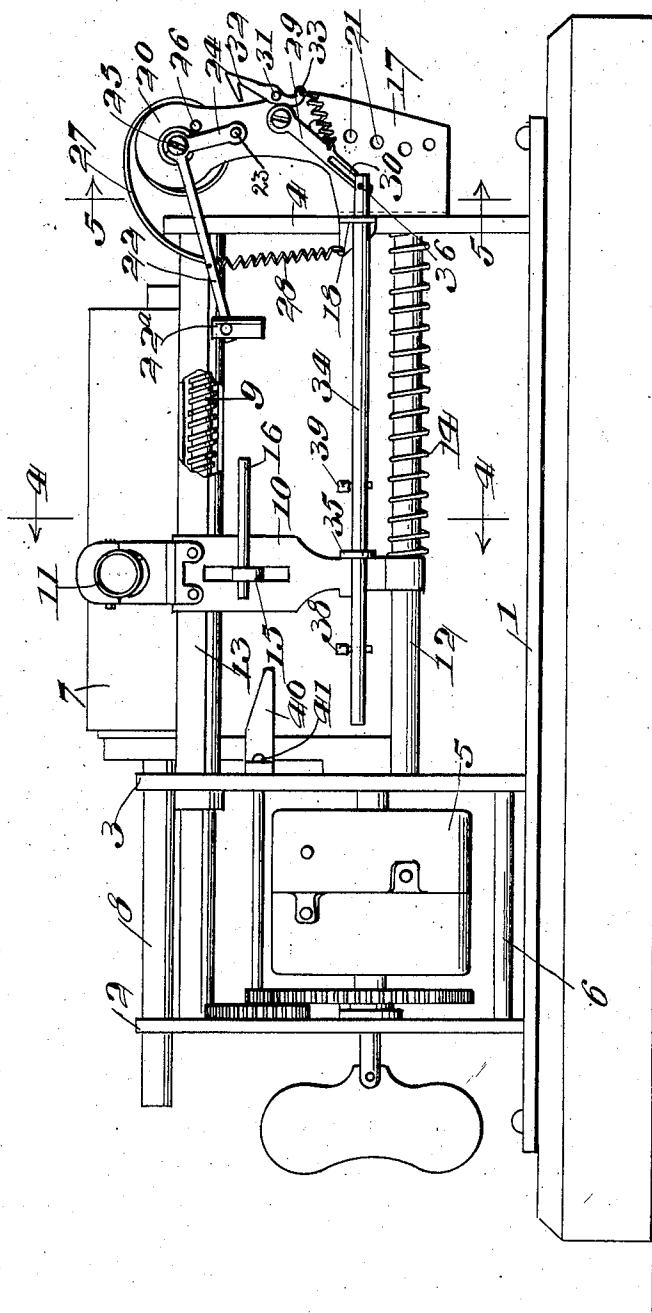
G. F. PERRENOT.
ATTACHMENT FOR PHONOGRAPHS, &c.
APPLICATION FILED DEC. 26, 1908.

937,641.

Patented Oct. 19, 1909.

3 SHEETS—SHEET 1.

Fig. 1.

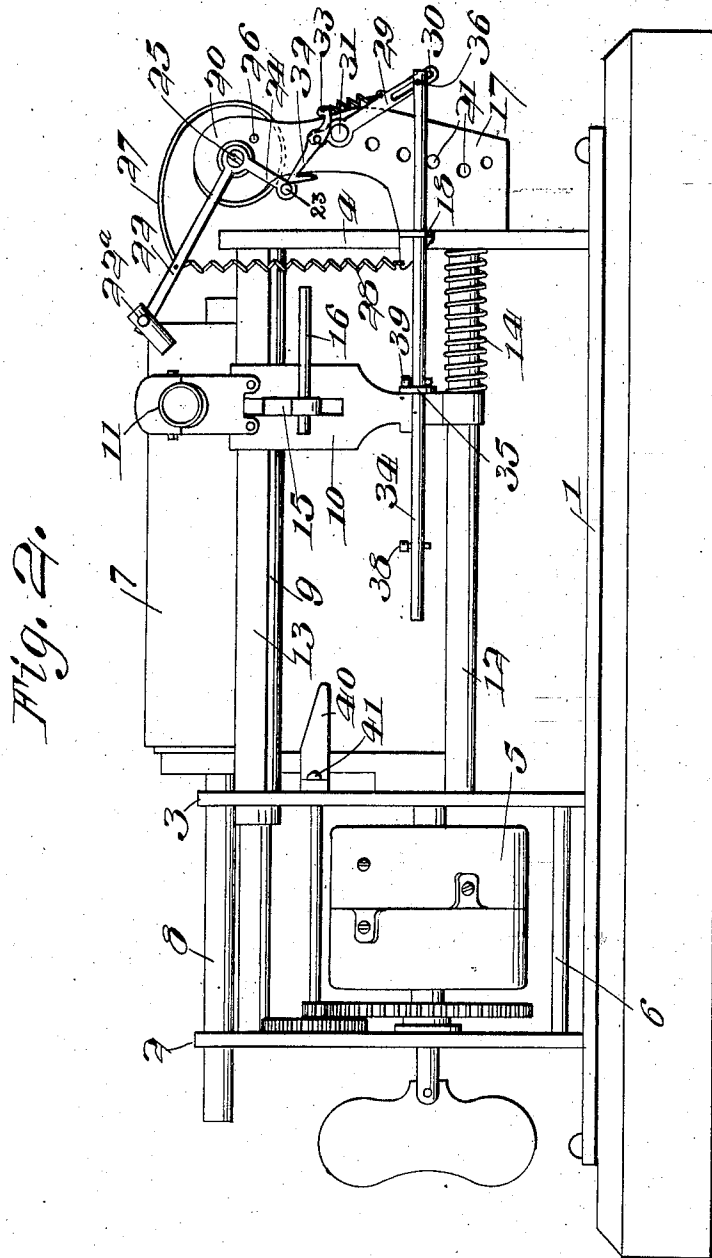


Witnesses
C. D. Brown.
C. H. Griesbauer

Inventor
Geo. F. Perrenot,
By *A. B. Wilson & Co*
Attorneys

937,641.

3 SHEETS—SHEET 2.



Inventor
Geo. M. Perrenot,
By *A. B. Wilson & Co*
Attorneys

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3 SHEETS—SHEET 3.

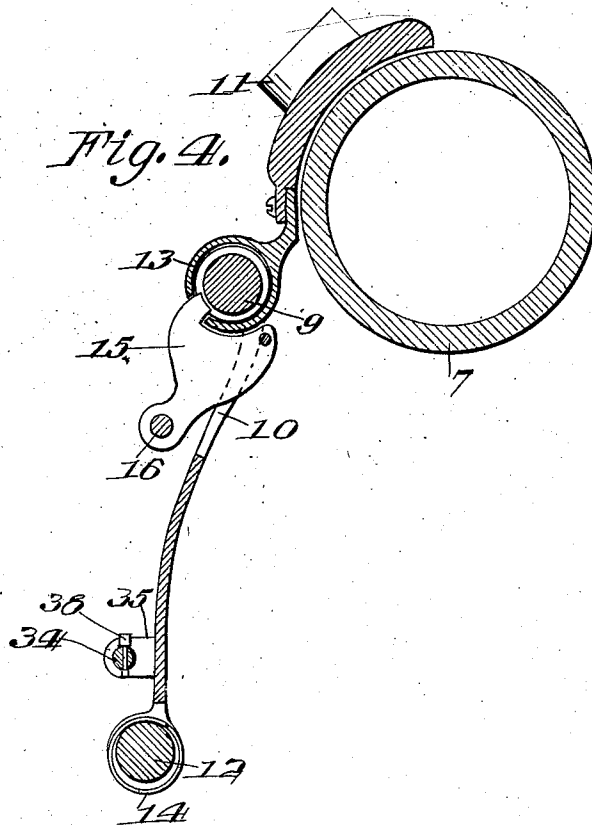
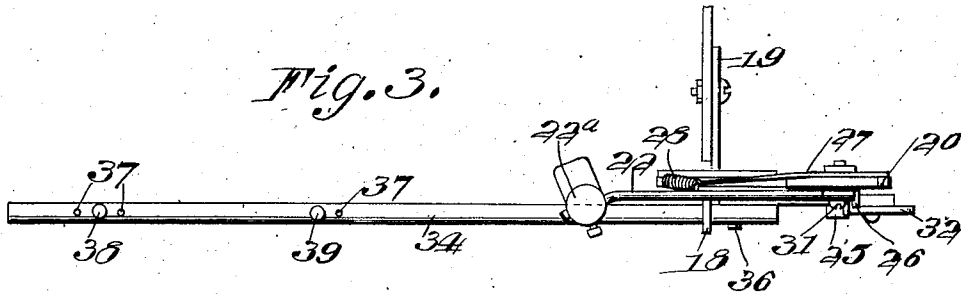
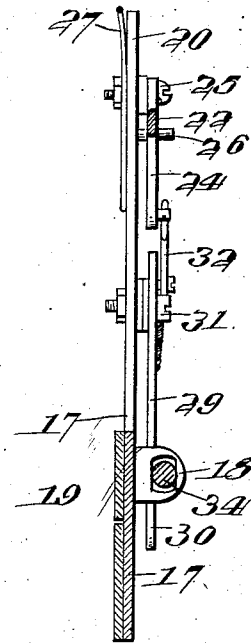


Fig. 5.



Witnesses
E. D. Brown.
C. A. Giesbauer.

Inventor
Geo. F. Perrenot,
By *A. Rivison & Co.*
Attorneys

UNITED STATES PATENT OFFICE.

GEORGE F. PERRENOT, OF YOAKUM, TEXAS, ASSIGNOR OF ONE-FOURTH TO ROBERT WILLIAM EASTERLING, OF YOAKUM, TEXAS.

ATTACHMENT FOR PHONOGRAPHS, &c.

937,644

Specification of Letters Patent.

Patented Oct. 19, 1909.

Application filed December 26, 1908. Serial No. 469,213.

To all whom it may concern:

Be it known that I, GEORGE F. PERRENOT, a citizen of the United States, residing at Yoakum, in the county of Dewitt and State of Texas, have invented certain new and useful Improvements in Attachments for Phonographs, Graphophones, &c.; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention comprehends the construction of a repeating device for phonographs or graphophones capable of returning a reproducer of a phonograph to its starting position on a record.

One of the objects of this invention is the construction of a repeating device for phonographs which may be cheaply manufactured, and readily applied to cylindrical machines.

Another object of this invention is the construction of a phonographic repeating device capable of being automatically operated by the reproducer moving arm of a phonograph.

Another object of this invention is to provide a phonograph with means for returning a reproducer to its starting position and to automatically hold the reproducer out of engagement with its driving shaft.

With these and other objects in view this invention comprises certain novel constructions, combinations and arrangements of parts, illustrated in the accompanying drawings and particularly described in the specification and claims.

In the drawings and specifications similar parts are referred to by like numerals, in which,

Figure 1 is a side elevation showing my improved mechanism in its normal position; Fig. 2 is a side elevation showing my improved mechanism in a raised position; Fig. 3 is a plan view; Fig. 4 is a transverse section taken on line 4—4 of Fig. 1, and, Fig. 5 is a detail vertical sectional view taken on line 5—5 of Fig. 1.

In the drawings, I have illustrated a cylindrical phonographic machine comprising a base plate 1, on which are positioned a plurality of standard plates 2, 3 and 4. The standard plates 2 and 3 support a driving mechanism 5, and are secured in place in any suitable manner, in this instance by

horizontal rods 6. The usual shafts for the record and the reproducer are mounted on the standard plates. A cylindrical record 7 rotates on a record shaft 8, and a threaded shaft or worm 9 having connections with the driving mechanism connects with a reproducer arm 10, said arm carrying a reproducer 11. The arm 10 is slidably mounted on two horizontal rods 12 and 13, and the rod 12 is provided with a spring 14 which exerts tension against arm 10.

The arm 10 is provided with a movable half nut 15 arranged to engage the threaded shaft 9, and said nut is provided with a pin 16 which extends laterally therefrom. When the nut 15 engages the threaded shaft 9, the reproducer 11 will be moved across the record 7, and this movement of the reproducer will compress spring 14.

My repeating mechanism comprises a vertical plate 17, formed with a guide 18, and a slotted projecting arm 19, said plate being secured to the standard plates 4, by means of a bolt passing through the slotted arm 19. The vertical plate 17 is preferably formed with a narrowed upper end portion 20, and a plurality of apertures 21. An arm 22, carrying a hammer 22^a on one of its ends, and having the opposite end 24 bent at right angles to its body portion, is pivotally and adjustably mounted upon the plate 17 by means of a bolt 25 which is arranged to extend through apertures 21. End 24 of arm 22 is provided with a lateral pin 23, and a second pin 26 projects laterally from the plate 17 and is engaged by the arm 22. The arm 22 is connected by springs 27 and 28 to the plate 17 and to the bolt 25, which are adapted to quickly move the hammer 22^a downwardly with sufficient force to disengage the bolt-nut from its worm shaft. Should it be desired, one of the springs 27 or 28 may be dispensed with, by increasing the strength of the retained spring. A lever 29 formed with a slotted end 30 is pivotally mounted on the plate 17 by a bolt 31. A trip lever 32, formed with an aperture 33 and a V-shaped end, is mounted on lever 29 beyond the pivot bolt 31 and is adapted to engage arm pin 23 on lever 24 to raise the hammer 22^a, as will be hereinafter described. The lever 32 is held in a substantially vertical position by means of a spring 33, said spring having one of its ends secured to the end of lever 32 and its opposite end secured

to the middle portion of lever 29. Lever 29 is engaged by a horizontal bar 34 which is movable on the guide 18 and on a second guide 35 which is formed on reproducer arm

10. Bar 34 has one of its ends secured to the slotted end of lever 29 by a bolt 36, said bolt having its head projecting through said slotted end so as to securely connect lever 29 to bar 34. Bar 34 is formed with a plurality of apertures 37, through which pins 38 and 39 extend.

When the driving mechanism is set in motion, the record 7 will be rotated on the shaft 8 and the reproducer 11 will be moved across said record by means of the revolving shaft or worm 9. As the reproducer moves across the face of the record guide 35 will engage pin 39 on bar 34 thereby causing said bar to move with it. This movement will compress spring 14, move levers 29 and 32 so that the V-shaped end of lever 32 will engage pin 23 on arm 22, thereby raising the hammer 22^a. The hammer 22^a will be held in its raised position by lever 32 until the reproducer has completely crossed the record, and when this occurs, hammer 22^a will be released by the lever 32 and thrown downwardly by the springs 27 and 28 to strike pin 16 which will then be in line of engagement and thereby move nut 15 out of engagement with shaft 9, and when this disengagement occurs, spring 14 will automatically return the reproducer 11 to its starting position. As the reproducer begins to move to its starting position, guide 35 will engage pin 38 of arm 34 and thereby move levers 29 and 32 to their normal position. When the reproducer arm 10 arrives at its starting position, it will remain stationary unless the nut 15 is brought into engagement with shaft 9. This action is accomplished by means of a movable arm 40 which projects from standard plate 3 and by engagement with nut 15 moves the same against shaft 9. In case it is not desired to have the record repeated the arm 40 is moved on its pivot 41 so that the nut 15 will not be engaged by said arm, when the machine may be stopped.

My improved repeating device may be attached to any cylindrical phonograph by means of detail modifications.

From the foregoing description, taken in connection with the accompanying drawings, the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention as defined in the appended claims.

Having thus particularly described and ascertained the nature of my invention and

in what manner the same is to be performed, I declare that what I claim and desire to secure by Letters-Patent is:—

1. In a device of the class described, in combination with a phonograph, comprising a reproducer, a record and mechanism therefor, a plate arranged to be secured to the phonograph supports, levers mounted on the plate, a hammer engaged by the levers, a rod movable by said reproducer engaging with the levers, and means for disengaging said reproducer from its driving shaft.

2. In a device of the class described, in combination with a phonograph comprising a reproducer, a record, and mechanism therefor, a horizontally movable rod arranged to be engaged by the reproducer, levers moved by the rod, a hammer operated by the rod and means for returning the reproducer to its original position operated by the movement of the hammer.

3. In a device of the class described, in combination with a phonograph, comprising a record, a reproducer and mechanism therefor, a rod movable horizontally by the reproducer, levers connected with the rod, a hammer engaged by the levers, a movable nut carried by the reproducer engaged by the hammer, and a spring for returning the reproducer to its original position.

4. In a device of the class described, in combination with a phonograph, comprising a reproducer, a record and mechanism therefor, a plate arranged to be mounted on the supports of the phonograph, a hammer arm pivotally mounted on the plate, means for adjusting the hammer arm on the plate, a slotted lever, a lever carried by the slotted lever, a rod connected to the slotted lever and arranged to be engaged by the reproducer, means for disconnecting the reproducer from its driving shaft, and a spring for returning the reproducer to its original position.

5. In a device of the class described, the combination with a phonograph, comprising a record, a reproducer, and mechanism therefor, a movable rod engaged by the reproducer, a slotted lever engaged by the rod, a lever carried by the slotted lever and arranged to engage a hammer, a hammer engaged thereby, springs for controlling the hammer, means for disengaging the reproducer from its driving shaft, a spring for moving the reproducer to its original position, means for supporting the rod, the levers and the hammer, and a movable arm for limiting the movement of the reproducer.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

GEORGE F. PERRENOT.

Witnesses:

R. W. EASTERLING,
C. NEUMANN.