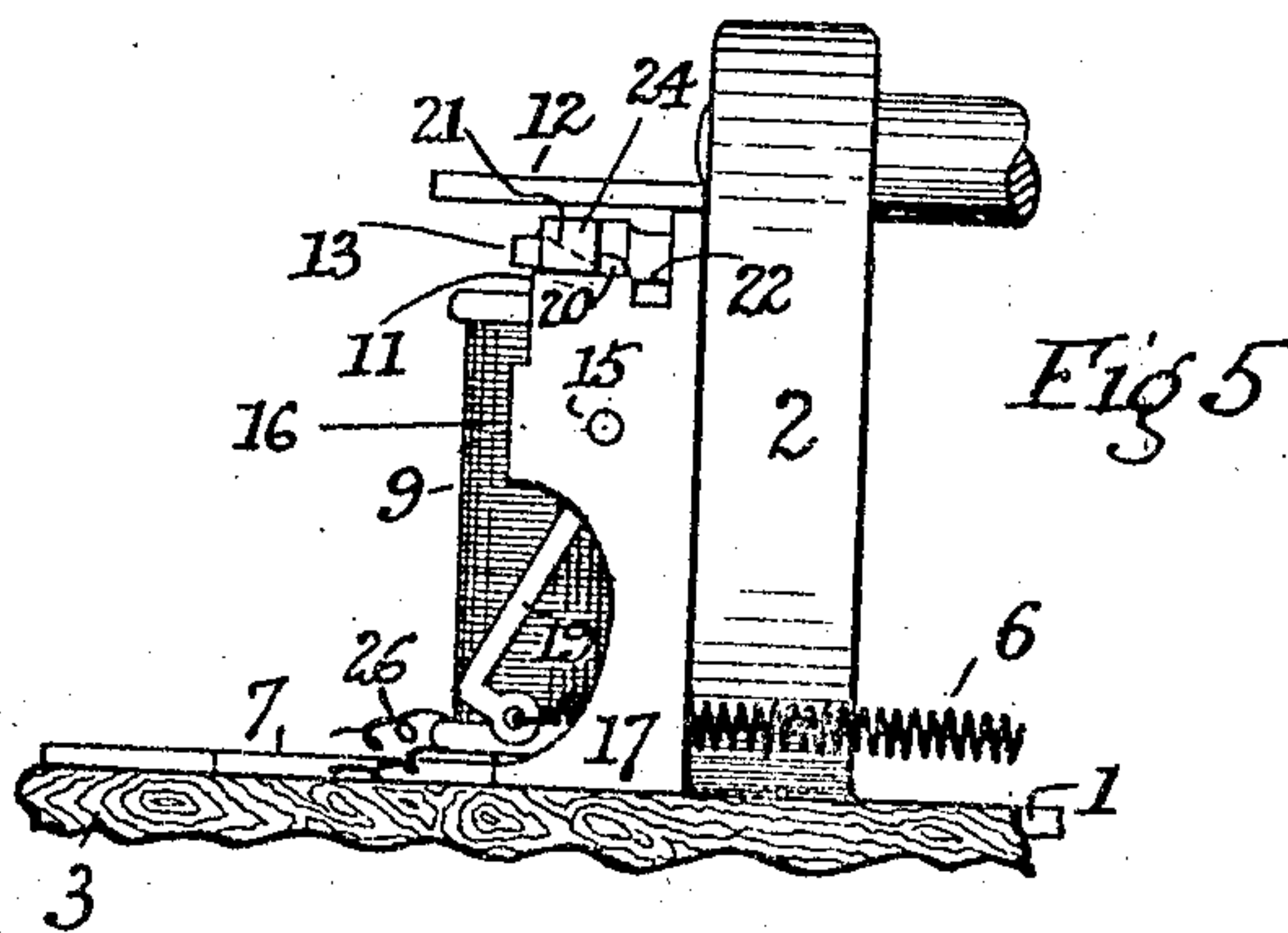
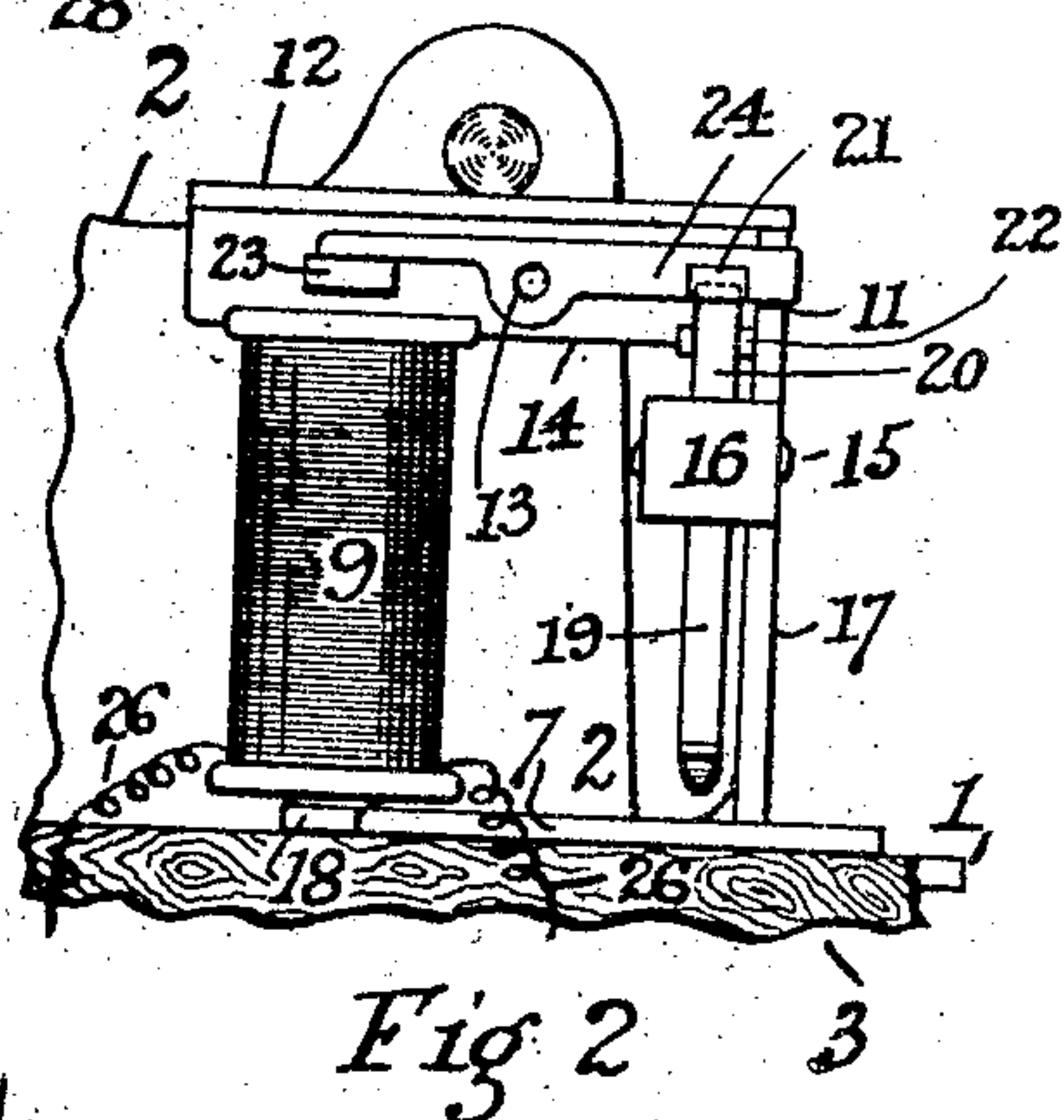
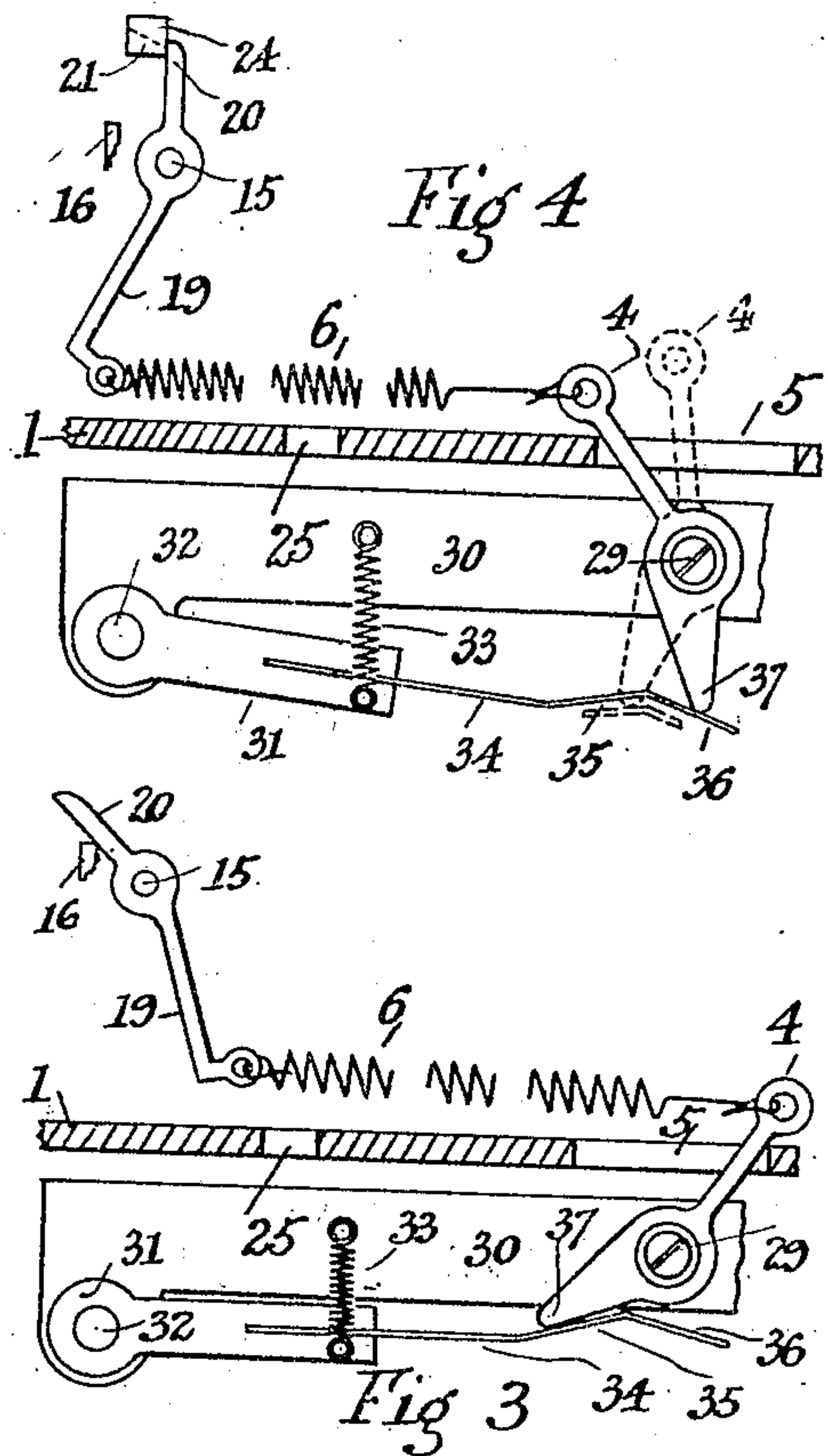
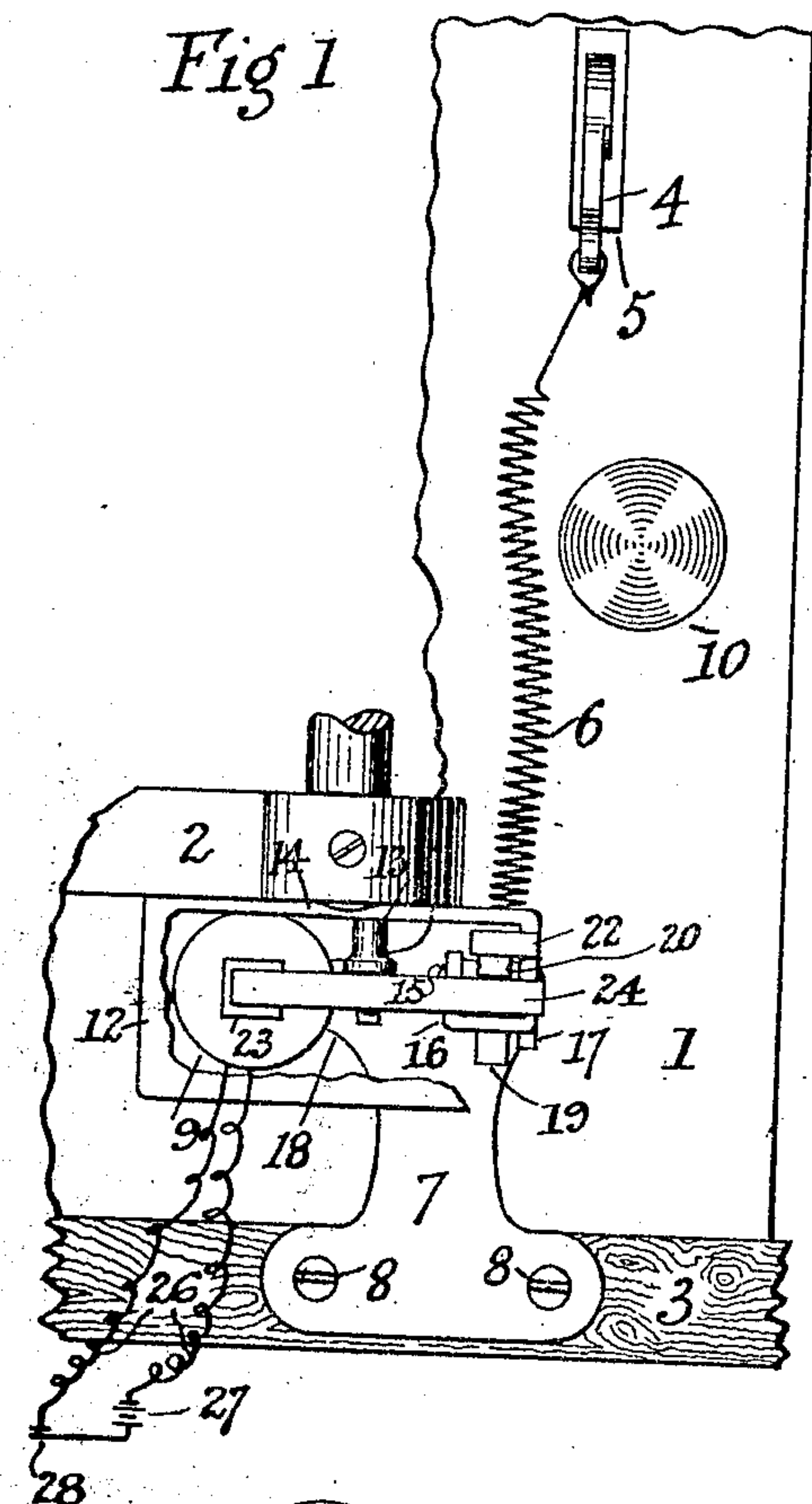


No. 885,484.

PATENTED APR. 21, 1908.

B. F. KEATING.  
TALKING MACHINE ATTACHMENT.

APPLICATION FILED NOV. 22, 1907.



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# UNITED STATES PATENT OFFICE.

BERNARD FRANCIS KEATING, OF HAWTHORN, VICTORIA, AUSTRALIA.

## TALKING-MACHINE ATTACHMENT.

No. 885,484.

Specification of Letters Patent.

Patented April 21, 1908.

Application filed November 22, 1907. Serial No. 403,372.

*To all whom it may concern:*

Be it known that I, BERNARD FRANCIS KEATING, a subject of the King of Great Britain and Ireland, &c., residing at Hawthorn, in the State of Victoria, Commonwealth of Australia, have invented certain new and useful Improvements in Talking-Machine Attachments; and I do hereby 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.

The ordinary sound reproducing or talking machine has a motor which is started or stopped by moving by a hand lever—which puts a governor brake “on” to bring the motor to rest—, and takes it “off” when the motor is to be set running. This invention is applicable to such a lever without interfering with its positioning by hand as heretofore. In order that at a future time, or in a certain event, the machine shall reproduce sound from a “record” mounted on it this invention provides for the hand lever being located at will intermediately between the ordinary “on” and “off” extreme positions.

The above will be understood from the accompanying drawings in which

Figure 1 is a plan-view showing part of a phonograph or graphophone with my attachment. Fig. 2 is a side elevation of Fig. 1. Fig. 3 is a front view partly in vertical section illustrating the position of some of the parts when the motor is running. Fig. 4 shows the parts in Fig. 3 when the hand lever is in its intermediate position—that is when the motor is not running. Fig. 5 shows, in front elevation, the parts in Fig. 2.

In these drawings 1 shows the top plate of the phonograph or like machine, 2 a lug thereon, 3 boxing or framing, 4 the hand lever, shown projecting up through slot 5 in plate 1 these parts not being new. To lever 4 a spiral spring 6 is connected.

7 is the base plate of my attachment, which has any suitable means for fixing it, such as screws 8 entering framing or box 3. Part of this base plate is an arm or lug 18 which supports an electro magnet or coil 9, the armature of which, 23, is normally raised as in Fig. 2. The material of base plate 7 is bent up to form pillar 17, integral with which is a lug 16 bent to extend parallel to the pillar, or so as to enable an axle or spindle, 15, to be supported or journaled in the parts 16,

17. This spindle carries a lever having arm 19 connected to spring 6, and an arm 20 which is temporarily held up by a lever 24 as hereinafter described—see Figs. 4 and 5. From pillar 17 the material extends to form a back plate 14, on which is mounted a pin 13 on which the armature lever 24 is pivoted. This lever at one end carries armature 23, and has an inclined or beveled surface 21 at or near its other end which normally is depressed, resting on a stop 11, which is part of plate 17, see Figs. 2 and 5. Part 12 situated over lever 24 and electro magnet 9, is a protective plate integral with the back 14.

21 on lever 24 is a beveled or inclined surface such that arm 20 on pressing said surface causes that end of the lever to rise, so that arm 20 passes the lever, upon which the latter will drop preventing the arm returning till lever 24 moves.

Part 22 integral with pillar 17 is a stop behind arm 20 so that the latter will be close behind lever 24 so that if the latter lifts momentarily a small movement of arm 20 will insure its descent. Furthermore this descent is insured by the gravity of arm 19 or by the pull of spring 6.

The position of connected parts 4, 6, 19, 20, of Figs. 1, 2, and 5 is seen clearly in firm lines in Fig. 4; but in Fig. 3 these parts are shown in a different position arrived at partly by the preliminary setting of lever 4 as dotted in Fig. 4, and subsequently by the movement of the lever 24 by the closing of a contact 28 in an electrical circuit comprising wires 26, battery 27, and electro magnet 9; the result being to draw down armature 23 see Fig. 2. The battery is in some instances located in the phonograph or machine casing; in others it is at a distance—part of an electric bell circuit for example. When arm 20 falls it is arrested by a stop, shown in Fig. 3 as formed by part 16.

An aperture 25 in plate 1 Figs. 3 and 4 receives a regulating screw 10 Fig. 1, these parts not being otherwise shown, and not incidental to this invention. The said screw is in use as a regulator of an arm 31 which is pivoted at 32 to framing 30. Lever 4, pivoted at 29 to frame 30, has an inner end 37, against which bears end 36 of a bent spring 34 which projects from arm 31 and has an intermediate upwardly inclined part 35. The upward tendency of spring 34 is insured by a spring 33 connecting frame 30 to arm 31.



When lever 4 is located as in firm lines in Fig. 4 the spring 6 is left slack, no pull being then needed on lever 19, and consequently no pressure of arm 20 on the back of lever 24. Any movement of armature lever 24 would then have no effect on lever 4, so that the phonograph motor would not thereby be affected. Lever 4 could evidently be moved by hand at any time at will to start or stop the motor. By setting lever 4 however as in dotted lines Fig. 4 spring 6 is slightly stretched, causing or insuring slight pressure of arm 20 on the back of lever 24, and end 37 is brought over part 35 of spring 34, which is however unable to as it ordinarily would do further swing lever 4 by its pressure, owing to the resistance of spring 6, and of lever 24 to the movement of arm 20. But when lever 24 moves, the various parts will take the positions in Fig. 3. This will be so because the pressure of part 35 of spring 34 on part 37 of lever 4 then swings that lever on its pivot, spring 6 and lever arms 19 and 20 being then free.

The various parts illustrated below plate 1 in Figs. 4 and 3 are already used in graphophones; in which to cause the motor to run it is only necessary to move lever 4 to allow spring 33 to lift arm 31 into the position of Fig. 3. There is however no provision in graphophones for setting lever 4 as in dotted lines in Fig. 4 and releasing the said lever by attached electrical mechanism as herein described, whereby to allow spring 33 to cause spring 34 to swing lever 4 to the position in Fig. 3.

In the following claims I term for brevity part 4 a motor controlling hand lever, or simply a hand lever; parts 19 and 20 an intermediate lever as it is between levers 24 and 4, and spring 6 an intermediate spring as it is between lever 4 and part 19.

Although the illustrations show the form in which the mechanism is preferably constructed, there may obviously be sundry variations made, within the scope of my claims. For example bevel 21 is not essential.

What I do claim as my invention and desire to secure by Letters Patent of the United States is:—

1. In a talking machine, a hand lever for controlling said machine; an attachment having an electro magnet and an armature lever; means for making an electric circuit

through the coil of said magnet to operate the latter lever from a distance; an intermediate lever and spring connection to said hand lever; and a stop whereby the intermediate lever is held by the armature lever so that the hand lever is retainable in an intermediate position as set forth, and will allow the motor to move when the armature lever is moved as described.

2. In a talking machine an attachment comprising a hand lever for controlling said machine; a spring 6, connected to said lever; an intermediate lever 19, 20, controlled by said spring; an armature lever 24, and a stop 16, also, controlling said lever 19, 20, and a magnet controlling said armature lever, substantially as described.

3. In a talking machine, an attachment having an electro magnet for energizing it by making a contact at a distance from the machine; a pivoted armature lever for said magnet; an intermediate lever adapted to move and pass the armature lever and have its return stopped by the latter; a motor controlling hand lever; and a spring connection from the intermediate lever to said motor controlling hand lever, substantially as described.

4. In a talking machine attachment a base plate 7, provided with a lug 18; a pillar 17; a lug 16 and stops 11 and 22, integral with said pillar; a back plate 14; and a protective plate 12, integral with said back plate, substantially as described.

5. In a talking machine an attachment comprising a suitable base plate; an electro magnet; an armature lever for the same; an electrical circuit to operate the said lever from a distance; a pivoted lever 19, 20; a spring 6; a hand lever 4; and a member having surfaces 35, 36, adapted to control said hand lever; substantially as described.

6. In a talking machine; a hand lever capable of occupying two extreme positions for controlling the same; means for holding said hand lever in a mid position; and means controllable from a distance for causing said hand lever to move from its mid to one of its extreme positions, substantially as described.

In testimony whereof, I affix my signature in presence of two witnesses.

BERNARD FRANCIS KEATING.

Witnesses:

GEORGE G. TURRI;  
BEATRICE M. LOWE.