

O. LINDHOLM.
 PHONOGRAPH ATTACHMENT.
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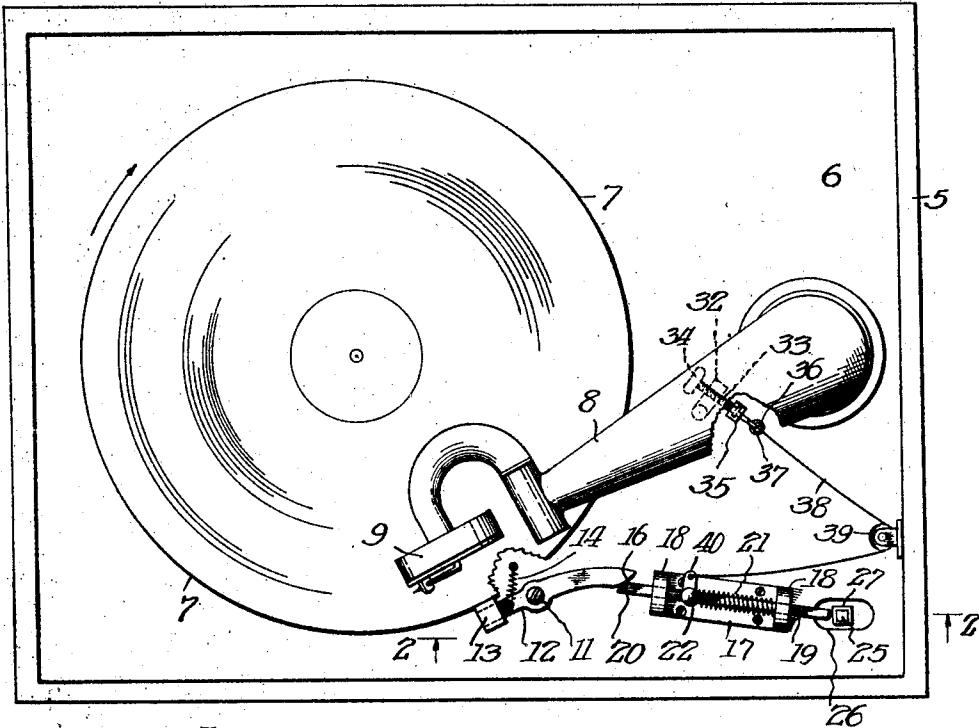


Fig. 1

Fig. 2

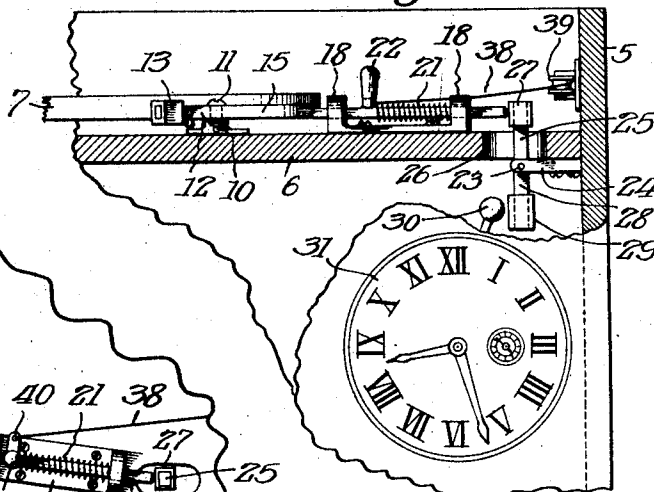
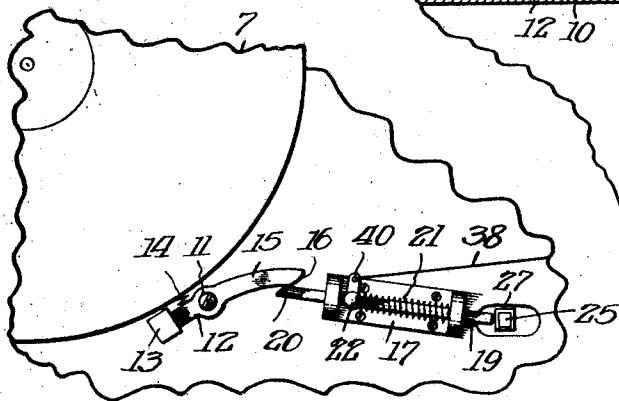


Fig. 3



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PHONOGRAPH ATTACHMENT.

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To all whom it may concern:

Be it known that I, OSCAR LINDHOLM, a subject of the King of Sweden, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Phonograph Attachments, of which the following is a specification.

This invention relates to attachments for phonographs or talking machines, and has reference more particularly to an attachment in the nature of an automatic alarm, through the use of which the phonograph may be employed to perform the function of an alarm clock to awaken the owner or user at a predetermined hour by playing a musical or other record.

My invention includes a brake, spring-held against the periphery of the turn table of the instrument so as to hold the latter against rotation by the motor; and means actuated by the hammer or clapper of an ordinary alarm clock for retracting the brake when the alarm is sprung, thus permitting the turn table to revolve and a record thereon to be played, the reproducer having been lowered into engagement with the record at the time the device is set.

In its most complete form, the invention also includes an automatic device for retracting the brake releasing device and permitting the automatic reapplication of the brake at or before the conclusion of the playing of the record.

The main object of the invention is to provide, for owners and users of talking machines, an agreeable substitute for the ordinary harsh and noisy alarm clock as a means of arousing the user from sleep at a predetermined hour.

In the accompanying drawing, I have illustrated one practical and approved embodiment of the invention which I have found, in practice, to operate successfully and satisfactorily, and referring thereto—

Figure 1 is a top plan view of a phonograph cabinet, the lid being removed to disclose the turn table, reproducer and tone arm, with my attachment applied thereto;

Fig. 2 is a view partly in elevation and partly in vertical section, substantially on the line 2—2 of Fig. 1; and,

Fig. 3 is a fragmentary top plan view, illustrating the position of the parts when the brake has been released by the alarm clock.

Referring to the drawing, 5 designates, as an entirety, the body of a phonograph cabinet, and 6 the usual horizontal partition or platform just below the turn table and tone arm. 7 designates the turn table, 8 the swinging tone arm, and 9 the reproducer, all as usual in the well known Victrola machine.

On the table 6 is secured a block 10, to which is pivoted, by a pivot stud 11, a brake lever, one arm 12 of which carries a leather or like shoe 13 adapted to bear against the periphery of the turn table 7, and being normally drawn into engagement therewith by the tension spring 14. The other arm 15 of the brake lever is formed on its outer end with a curved cam surface 16.

Mounted on the table 6 is a plate 17 having, at its ends, upstanding apertured lugs 18 which form guides for a sliding push rod 19 mounted therein. The inner end of this rod 19 is also formed with a curved cam surface 20 which, in its retracted position, bears against the cam end 16 of the brake lever arm 15, as shown in Fig. 1. Preferably, the rod 19 is encircled by a light coil spring 21 which bears, at one end, against the outer guide lug 18 and, at its other end, against the base of an upstanding handle 22 formed on or attached to the rod 19, this spring lightly urging the rod 19 toward the brake lever. The spring 21 is so light that, in the set position of the parts shown in Figs. 1 and 2, its force is not sufficient to overcome the force of the spring 14, so that the latter holds the brake shoe 13 engaged with the turn table.

Pivoted at 23 to a bracket 24 on the under side of the table 6 is a lever, the upper arm 25 of which extends through a slot 26 in the table 6 and carries a rubber sleeve 27 on its upper end lying directly behind the outer end of the rod 19. The lower arm 28 of this lever likewise carries a rubber sleeve 29 which lies directly behind the hammer or clapper 30 of an ordinary alarm clock 31 which may be set in a circular opening in the side wall of the cabinet.

With the parts in the set positions illustrated in Figs. 1 and 2, when the alarm of the clock is released at the predetermined hour, the hammer 30 of the clock vibrates the vertical lever 28—25, thereby striking the outer end of the rod 19 and forcing the latter inwardly, aided by the spring 21. During this movement, the end 20 of the rod

cams past the end 16 of the brake lever, as shown in Fig. 3, thereby retracting the brake shoe 13 and holding it retracted, permitting the record to be played, the playing of the record constituting the alarm for awakening the sleeper. The spring 21 has a further function to hold the rod 19 in its inward position (Fig. 3) and prevent it from being accidentally pushed back by the cam end 16 of the brake lever before the playing of the record is finished.

The invention, as thus far described, is complete for its main purpose of furnishing a musical alarm for arousing the owner or user at a desired hour; but, in its preferred and most complete form, it also includes an automatic means for arresting the playing of the record at or before its completion. This automatic stopping device comprises a simple connection between the tone arm and the rod 19, through which, when the tone arm has reached a predetermined position over the record, it retracts the rod 19, thus permitting the spring 14 to apply the brake and stop the further playing of the record. To the under side of the tone arm is attached a bracket 32, in which is mounted a screw 33. One end of the screw has a head or knob 34 by which it may be turned, and on the other end of the screw is a swivel coupling 35 carrying a hook 36 to which may be connected a ring 37 on one end of a cord 38, this latter passing around the guide pulley 39 and being attached to a lug 40 on the handle 22. By adjusting the screw 33 in the bracket 32, when the reproducer reaches the end of the record groove or at any point prior thereto, the cord 30 is drawn taut, and thereupon retracts the rod 19, permitting the spring 14 to reapply the brake and arrest the rotation of the turn table.

I claim—

1. In a phonograph attachment of the character described, the combination with the turn-table of a phonograph, of a pivoted brake lever carrying a brake shoe co-operating with said turn-table, a spring normally acting to apply said brake shoe, a push rod adapted to engage with and swing said brake lever in a direction to retract

said brake shoe from said turn-table, and an alarm clock having its hammer so located as to transmit its vibrations to said push rod and force the same into engagement with said brake lever.

2. In a phonograph attachment of the character described, the combination with the turn-table of a phonograph, of a pivoted brake lever carrying a brake shoe co-operating with said turn-table, a spring normally acting to apply said brake shoe, a push rod having a cam-shaped end adapted to have sliding engagement with said brake lever and thereby swing the latter in a direction to retract said brake shoe, and an alarm clock having its hammer operating upon the other end of said push rod.

3. In a phonograph attachment of the character described, the combination with the turn-table of a phonograph, of a pivoted brake lever carrying a brake shoe co-operating with said turn-table, a spring normally acting to apply said brake shoe to said turn-table, a push rod having a cam-shaped end adapted to have sliding engagement with the outer end of said brake lever and thereby swing the latter in a direction to retract said brake shoe, a light spring urging said push rod against said brake lever but with insufficient force to retract said brake shoe, and an alarm clock having its hammer operating upon the other end of said push rod.

4. In a phonograph attachment of the character described, the combination with the turn-table of a phonograph, of a pivoted brake lever carrying a brake shoe co-operating with said turn-table, a spring normally acting to apply said brake shoe, a push rod adapted to engage with and swing said brake lever in a direction to retract said brake shoe from said turn-table, an alarm clock having its hammer operating upon one end of said push rod, and a lengthwise adjustable flexible connection between the tone arm of the instrument and said push rod for retracting the latter on the inward swinging movement of said tone arm.

OSCAR LINDHOLM.