March 31, 1931. F. L. DYER 1,798,196

CONTROLLING TALKING MACHINE TURNTABLES

Filed Jan. 23, 1929

Fig. 1

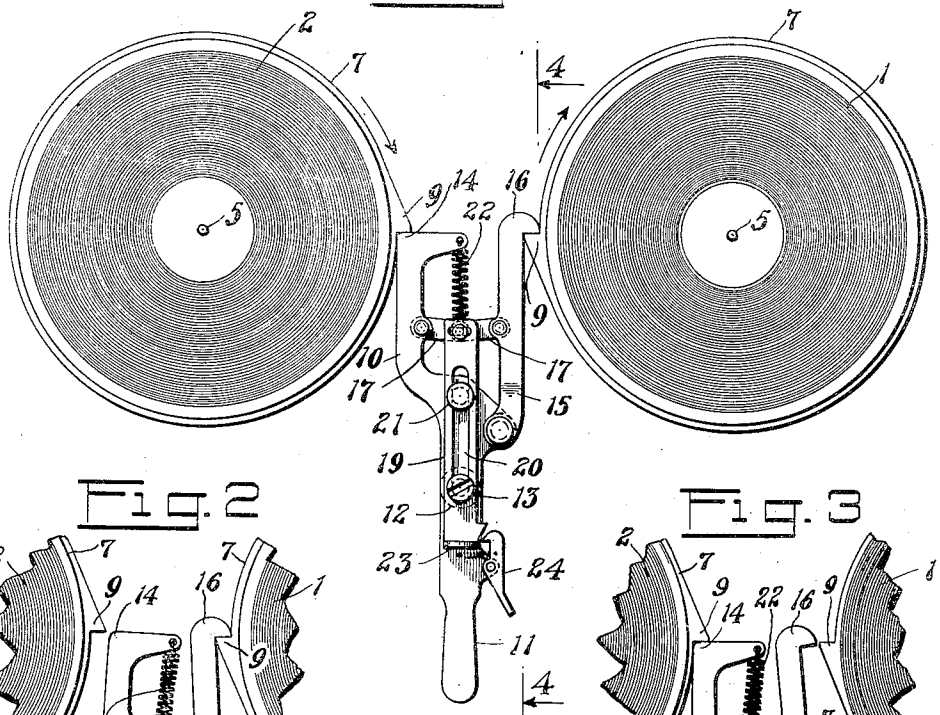


Fig. 2

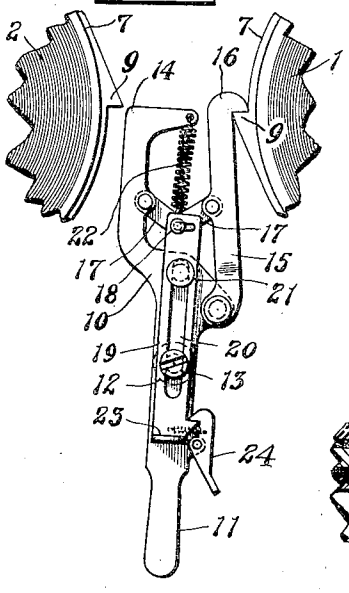


Fig. 3

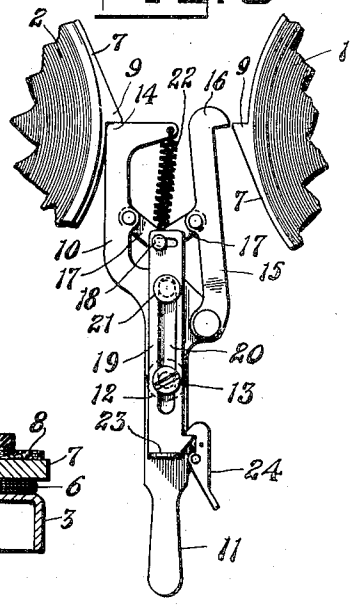


Fig. 5

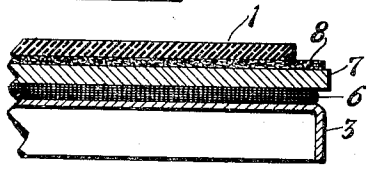
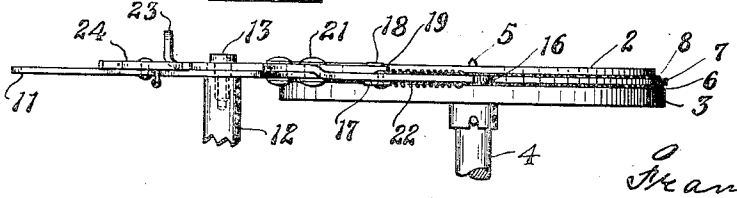


Fig. 4



INVENTOR

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UNITED STATES PATENT OFFICE

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CONTROLLING TALKING-MACHINE TURNTABLES

Application filed January 23, 1929. Serial No. 334,439.

My invention relates to means for controlling the records of talking machines, designed particularly for use in connection with motion picture films and operated in synchronism therewith, as disclosed for example, in my application for patent, filed January 2, 1929, Serial No. 329,800.

My object is to provide mechanism by which a talking machine record may be started very quickly and will pick-up to normal synchronous speed almost instantly, also to provide mechanism by which when one record is started, its companion record will be stopped, and further to provide mechanism by which both records may be held from rotation, if desired.

In order that my invention may be better understood, attention is directed to the accompanying drawing forming part hereof, and in which—

Figure 1 is a plan view of two records illustrating the improved mechanism for controlling them and showing both records held from rotation.

Figure 2, a similar view, illustrating one record stopped and the other rotating, the records being shown fragmentarily.

Figure 3, a view similar to Figure 2, showing a reversal in the starting and stopping.

Figure 4, a side elevation of one turntable and controlling mechanism; and

Figure 5, a fragmentary section on an enlarged scale, showing a portion of one turntable with the elements carried thereon, including the sound record.

In all of the above views corresponding parts are identified by the same numerals.

There are two turntables for carrying the two sound records 1 and 2, adapted to be played successively, one being started the moment the sound from the other stops.

Each turntable 3 is of usual construction, being formed of sheet metal with a down turned flange, and being carried by a vertical shaft 4 driven continuously and in synchronism with the motion picture projector, as disclosed in my application above referred to. The ordinary centering pin 5 projects upwards from each turntable for centering the several elements carried thereon, including the record 1 or 2.

Mounted upon each turntable is a friction disk 6, made of a material having a relatively high coefficient of friction with respect to the metal of the turntable, generally sheet iron or steel. I prefer to use for the purpose, materials of the nature of automobile brake linings, employing impregnated asbestos fibre. Each disk 6 may be secured to its respective turntable, or may rotate therewith by reason of friction between the surfaces.

Placed upon each friction disk is a metal control disk 7 as shown, preferably carrying a facing 8 of felt or other soft material, such as that now used on the upper face of an ordinary talking machine turntable.

Resting on the felt or pad 8 is the record 1 or 2, which therefore will be rotated by the respective turntables through the intermediate plates or control disks 6 and 7.

Each of the control disks 7 is formed with a projection or tooth 9 adapted to be intercepted by the improved controlling mechanism if rotating, or to be released thereby, if at rest, as I will now explain.

A lever 10 having a handle 11 is pivoted upon support 12 by means of a pivot screw 13, said lever being located between the two turntables as shown in Figure 1. The said lever is formed with an angular nose or end 14 adapted to be moved in the path of projection 9 corresponding to record 2, so as to arrest rotation thereof as shown in Figures 1 and 3 or to be moved out of engagement with said projection to permit said record to rotate, as shown in Figure 2.

Pivoted to lever 10 is an arm 15 having a hooked end 16 adapted to cooperate in the same way with the projection 9 corresponding to record 1.

Provision is made whereby the relative separation between the controlling elements 14 and 16 may be such as will stop both control disks 7, as in Figure 1, or stop only one or the other control disk as in Figures 2 and 3. For this purpose, I show toggle links 17, 17 connecting the arm 15 with lever 10, the pivot 18 of said links extending into a slot of a slide 19, the latter having a longitudinal slot 20,

guided by a headed screw 21 and by the pivot screw 13 before referred to.

A spring 22 tends to move the slide 19 to the position of Figure 1, thus spreading the control elements 14 and 16. The slide is formed with a finger piece 23 by which it may be drawn to the position of Figures 2 and 3, being locked against the tension of spring 22 by a latch 24.

Any suitable cushioning element may be employed to absorb the shock due to the sudden stopping of the disk 7 when it engages controlling element 14 or 16.

In operation, both turntables will be driven continuously and in synchronism with the projector. If either control disk 7 is released, the corresponding record will be driven by friction with the pad 8 and through the friction disk 6 which may be either free to move with respect to both the disk 7 and turntables or be secured to either so as to be movable with respect to the other.

If either control disk 7 is arrested, rotation of the record will stop, but the turntable will continue to rotate against the friction of friction disk 6.

By causing the controlling elements 14 and 16 to occupy the position of Figures 2 and 3, the lever 10 as a whole may be swung piyotally to release one record and stop the other, while by tripping the latch 24 both records will be held from rotation as shown in Figure 1.

What I claim is:

1. In controlling mechanism for talking machines, the combination with a pair of turntables and a sound record frictionally driven by each turntable, of a pivoted lever between said turntables, a stop on said lever for controlling one record, an arm pivoted to said lever, a stop on said arm controlling the other record, and means for moving said arm independently of said lever to arrest rotation of both records.

2. In controlling mechanism for talking machines, the combination with a turntable, a control disk carried by the turntable, a friction disk between the control disk and turntable permitting relative movement of said elements and driving the control disk frictionally, and a sound record carried by the control disk, of means for permitting the starting and stopping said control disk.

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