

L. H. HAYS.
ATTACHMENT FOR PHONOGRAPHS.
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936,534.

Patented Oct. 12, 1909.

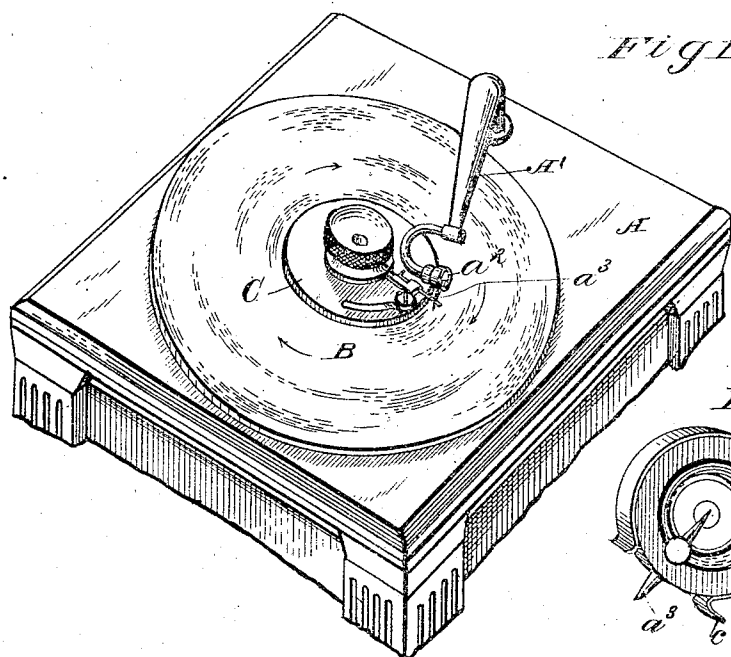


Fig. 1

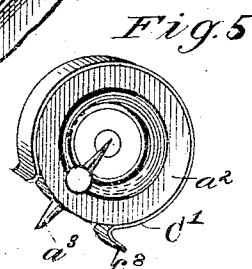


Fig. 5

Fig. 2

Fig. 3

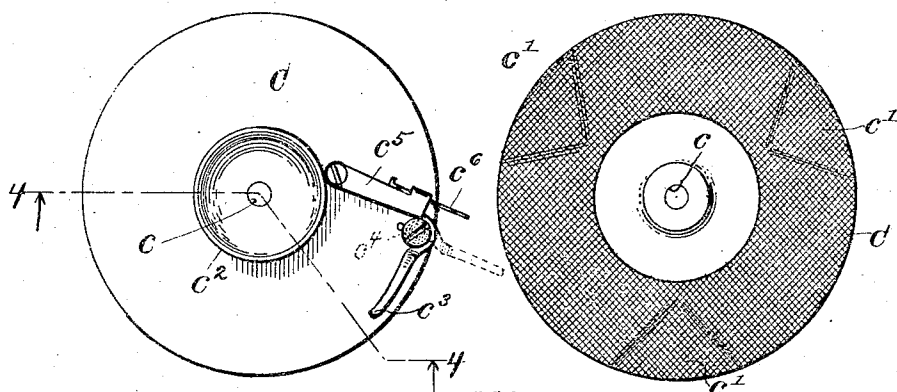
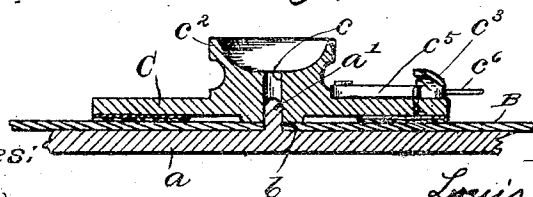


Fig. 4



Witnesses:

J. C. Turner
Jno. F. Oberlin

Inventor:

Louis H. Hays
by J. B. Fay
Attorney.

UNITED STATES PATENT OFFICE.

LOUIS H. HAYS, OF CLEVELAND, OHIO.

ATTACHMENT FOR PHONOGRAPHS.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, LOUIS H. HAYS, a citizen of the United States, resident of Cleveland, county of Cuyahoga, and State of Ohio, have invented a new and useful Improvement in Attachments for Phonographs, of which the following is a specification, the principle of the invention being herein explained and the best mode in which I have contemplated applying that principle, so as to distinguish it from other inventions.

This invention relates to phonographs or talking machines, particularly to talking machines of the disk record type such as the Victor and Columbia.

The object of the invention is the provision of a simple and inexpensive attachment for use in connection with such machines to automatically stop the same when the end of the record has been reached.

To the accomplishment of the above and related ends said invention, then, consists of the means hereinafter fully described and particularly pointed out in the claims.

The annexed drawing and the following description set forth in detail certain mechanism embodying the invention, such disclosed means constituting, however, but one of various mechanical forms in which the principle of the invention may be used.

In said annexed drawing: Figure 1 is a broken perspective view of a talking machine of the type in hand, specifically a Victor Victrola, with my improved braking attachment mounted thereon; Fig. 2 is a top plan view of such attachment; Fig. 3 is a bottom plan view of the same; Fig. 4 is a transverse section therethrough on the line 4-4, Fig. 2; and Fig. 5 is a perspective view of a sound box such as is used in machines of the class in hand, together with a clip mounted thereon to cooperate with my braking attachment as will presently appear.

Referring to the drawing, particularly Fig. 1, A will be seen to designate the cabinet or box of the machine upon the top of which, mounted on a suitable turn table a, shown in Fig. 4, is a flat circular disk record B of familiar construction. This disk merely frictional rests on the table a, being properly centered by being provided with an aperture b that engages with a central pin a' on such table, see Fig. 4. Pivottally mounted adjacent to the table so as to permit its free end to swing across the disk is the tapering arm A' that communicates with the

horn of the machine, such horn being concealed in the cabinet in the particular machine illustrated. The outer end of the horn is provided, among other things, with a sound box a² that bears a needle a³ that cooperates with the disk to produce the sound. In operating the machine, as will be recalled such needle is started at the outer edge or periphery of the disk and follows the spiral record groove until it arrives at the center.

Heretofore it has been a source of no small inconvenience in the use of machines of the class in hand to note the arrival of the needle or sound box at the end of the record, and incidental completion of the record, in order to stop the machine, which is desirable not merely to keep the motor from running down and promptly cut off the sound, but also, and more important, to prevent the tapering arm from jumping across the disk and by engagement of the needle with the disk to damage the record thereon.

My brake attachment comprises, then, a member, C designed to loosely rest on top of the disk, being held in place thereon by engaging with a central aperture c the same pin a' that serves to locate the disk on the table. This member, which is preferably made of metal and is circular in form, is provided on its under side with pads c' of friction material Fig. 3, preferably soft rubber, for engaging with the disk. Said member is also provided on its upper side with a knob c² of any suitable design whereby the member may be conveniently handled by the user. Pivottally mounted on the upper face of the member is a catch arm c³ adapted in one position to project beyond the edge of the member to engage the sound box a², or corresponding part of the machine, when such part lies within a predetermined distance from the center of the disk. A spring c⁴, Fig. 2, tends thus to position said arm, but a trip c⁵ serves normally to retain the same in its inoperative position. This trip is provided with a pin c⁶ adjustably held therein so as to project at any desired distance beyond the member, which pin is likewise adapted to be engaged by the sound box, or preferably the needle borne by such box. This pin can accordingly be located so as to register quite exactly with the termination of the record on the disk, so that as the trip is carried around by the disk in the course of the latter's rotation it will be finally brought

up against the needle of the sound box and thereby release the catch arm c^2 . Such catch arm immediately springs into operative position and upon the completion of the next
 5 rotation of the disk and brake member it in turn engages the needle or preferably the sound box, the disposition of the parts being properly arranged with this in view. Where
 10 neither the needle or sound box afford a convenient means for such engagement I provide a clip C' in the form of an encircling spring for the sound box, such spring clip having a projecting arm c^3 that will thus en-
 15 gage with the catch arm of the brake member C . Since the engagement of this brake member with the disk is frictional only, the stopping of the machine will not be sudden and sharp as where the manually operated stop
 20 regularly employed in machines of this character, is thrown into action, but a gradual braking effect is exerted, which brings the motor governor, and other parts of the machine to a stop without shock or injury to the parts.

25 I do not claim broadly a brake attachment for disk talking machines, comprising a member designed to rest on top of the disk, and means borne by said member adapted to engage the sound box, or corresponding part
 30 of said machine, as such part approaches the center of the disk and priority thereto is hereby disclaimed.

Other modes of applying the principle of my invention may be employed instead of
 35 the one explained, change being made as regards the mechanism herein disclosed, provided the means stated by any one of the following claims or the equivalent of such stated means be employed.

40 I therefore particularly point out and distinctly claim as my invention:—

1. A brake attachment for talking machines, comprising a member adapted to loosely rest on the record, said member hav-
 45 ing a friction surface for engaging with said record, and radially adjustable means borne by said member and adapted to engage the sound-box or corresponding part of said machine as such part approaches the
 50 center of the record.

2. A brake attachment for talking machines, comprising a member adapted to loosely rest on the record, said member hav-
 55 ing a friction surface for engaging with said record, a catch borne by said member and adapted to engage the sound-box or corresponding part of said machine when such part lies within a predetermined distance from the center of the record, said catch be-
 60 ing normally inoperative, and a trip adapted to operatively position said catch upon being engaged by the machine part in ques-
 tion.

3. A brake attachment for talking machines, comprising a member adapted to

loosely rest on the record, said member hav-
 ing a friction surface for engaging with said record, a catch borne by said member and adapted to engage the sound-box or cor-
 responding part of said machine when such
 70 part lies within a predetermined distance from the center of the record, said catch being normally inoperative, and a radially ad-
 justable trip adapted to operatively position
 75 said catch upon being engaged by the ma-
 chine part in question.

4. A brake attachment for talking machines, comprising a member adapted to loosely rest on the record, said member be-
 ing provided on its underside with pads of
 80 friction material for engaging with said record, a catch arm pivotally mounted upon said member and adapted in one position to project beyond the same to engage the sound-
 box or corresponding part of said machine
 85 when such part lies within a predetermined distance from the center of the record, a spring tending thus to position said arm, and a trip adapted normally to retain said
 90 arm in its inoperative position but to release the same upon being engaged by the machine part in question.

5. In a talking machine, the combination with the record and sound-box or corre-
 sponding part of the machine cooperative
 95 with said record, of a member resting on said record, and radially adjustable means borne by said member and adapted to en-
 gage the machine part in question as such
 100 part approaches the center of said record.

6. In a talking machine, the combination with the record and sound-box or corre-
 sponding part of the machine cooperative
 105 with said record, of a flat member loosely resting on said record, said member having a friction surface for engaging with said record, and radially adjustable means borne
 110 by said member and adapted to engage the machine part in question as such part approaches the center of said record.

7. A brake attachment for talking machines, comprising a member adapted to loosely rest on the record, said member be-
 ing provided on its underside with pads of
 115 friction material for engaging with said record, a catch arm pivotally mounted upon said member and adapted in one position to project beyond the same to engage the sound-
 box or corresponding part of said machine
 120 when such part lies within a predetermined distance from the center of the record, a spring tending thus to position said arm, a trip pivotally mounted adjacent to said arm and adapted normally to retain the same in
 125 its inoperative position, and a member adjustably secured to said trip and adapted to be extended to engage the machine part in question as the latter approaches the center of the record.

8. In a talking machine, the combination

with the record and sound-box of the machine cooperative with said record, of a member resting on top of said record, said sound-box bearing a projection forwardly of its needle adapted to be engaged by said member as said sound-box approaches the center of said record.

9. In a talking machine, the combination with the record and sound-box of the machine cooperative with said record, of a member resting on top of said record, and a second member removably secured to said sound-box and provided with a projection adapted to lie forwardly of the needle of said sound-box and to be engaged by said first-named member as said sound-box approaches the center of said record.

10. In a talking machine, the combination with the record and sound-box of the machine cooperative with said record, of a member resting on top of said record, and a spring clip removably secured to said sound-box and provided with a projection adapted to be engaged by said member as said sound-box approaches the center of said record.

11. In a disk talking machine, the combination with a record and sound-box of the machine, said box being provided with the usual needle, of a spring clip removably secured to said sound-box and provided with a

projection, a flat member loosely resting on said record, said member being provided on its under side with pads of friction material for engaging with said record, a catch arm pivotally mounted upon said member and adapted in one position to project beyond the same to engage with the clip on said sound-box when the latter lies within a predetermined distance from the center of said record, a spring tending thus to position said arm, and a trip adapted normally to retain said arm in its inoperative position but to release the same upon being engaged by the needle wherewith said box is provided.

12. A clip provided with a projection and adapted to be removably secured to the sound-box of a talking machine, substantially as described.

13. A spring clip provided with a projection and adapted to be removably secured to the sound-box of a talking machine, said projection lying forwardly of the needle of said sound-box when said clip is secured thereon, substantially as described.

Signed by me this 27th day of June, 1908.

LOUIS H. HAYS.

Attested by—

CHRISTINE ARUS,
Jno. F. OBERLIN.