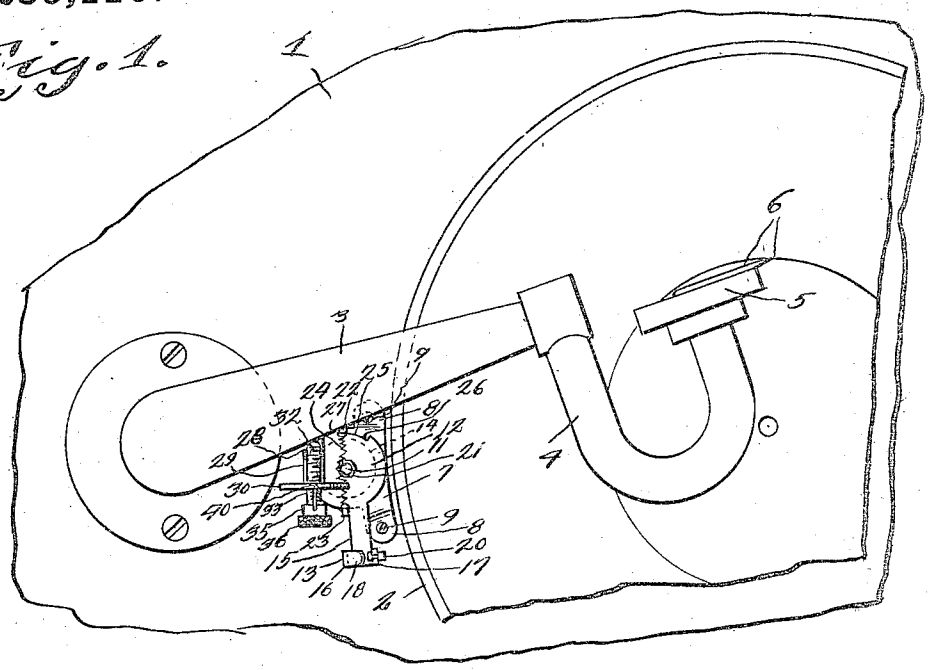
J. S. LANE.

STOP FOR TALKING MACHINES.

APPLICATION FILED JUNE 22, 1917.

1,259,110. Patented Mar. 12, 1918.

Fig. 1.



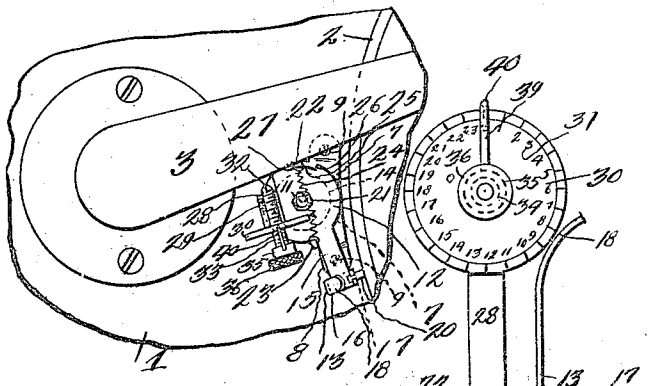


Fig. 2.



Fig. 4.

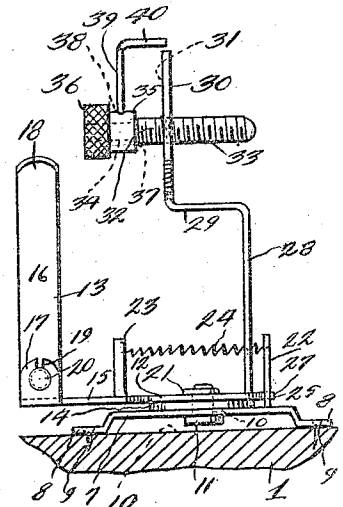


Fig. 5.

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# UNITED STATES PATENT OFFICE.

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## STOP FOR TALKING-MACHINES.

1,259,110. Specification of Letters Patent. Patented Mar. 12, 1918.

Application filed June 22, 1917. Serial No. 176,370.

*To all whom it may concern:*

Be it known that I, JAMES S. LANE, a citizen of the United States, residing at Snohomish, in the county of Snohomish, State of Washington, have invented a new and useful Stop for Talking-Machines; 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.

This invention relates to the art of talking machines, and more especially to an improved stop, to be automatically actuated by the tone or sound arm for stopping the turn table that supports the record.

A further object of the invention is the provision of a device of this kind having an oscillatory spring tension frame or bracket mounted upon a plate and provided with a screw to be adjusted according to graduations upon a dial, whereby, as the stylus or needle reaches the end of the sound groove of the record, the tone or sound arm will engage the end of the abutment screw and cause the frame or bracket to oscillate incident to the tension of its spring, thereby applying a buffer to the turn table for stopping the same.

A further object of the invention is the provision of a dial and an abutment screw threaded through its center, and having an arm to overlie and register with any one of the graduations of the dial in accordance with the ending of the sound groove of the record, whereby the tone arm may contact with said screw to oscillate said frame or bracket. This abutment screw may be provided with any number of threads, each of any suitable pitch in accordance with the graduations of the dial and vice versa. In other words, the graduations of the dial may be varied according to the pitch and the number of threads.

In practical fields, the details of construction may necessitate alterations falling within the scope of what is claimed.

The invention comprises further features and combination of parts, as hereinafter set forth, shown in the drawings and claimed.

In the drawings:—

Figure 1 is a plan view of a portion of a talking machine, showing the improved stopping device applied, whereby the tone or sound arm may automatically actuate the stopping device.

Fig. 2 is a plan view showing the stopping device as having been actuated.

Fig. 3 is a view in side elevation of the stopping device, showing the same on an enlarged scale.

Fig. 4 is a view in elevation at right angles to that illustrated in Fig. 3.

Referring more especially to the drawings, 1 designates a portion of the casing of a talking machine, and in which casing the motor, not shown, for driving the record supporting turn table 2 is designed to be arranged. Swiveled in a conventional manner on the casing 1, whereby it may oscillate across the record is a conventional form of tone or sound arm 3, which is provided with the usual coupled vertically oscillatory section 4 which is supplied with the sound box 5 having the stylus or needle 6. A partial circular supporting plate 7 is provided, the same having laterally extending perforated ears 8. Said ears are bent downwardly so as to hold said plate spaced at an interval above the casing 1, there being suitable screws 9 passing through the perforations of the ears, to fasten the plate firmly to the casing. The center of the plate 7 has a perforation or aperture 10, for the reception of a pivot bolt 11, the head of which is arranged between the plate 7 and the upper face of the casing. This bolt 11 passes centrally through the circular base 12 of the oscillatory bracket 13, there being a suitable washer or circular plate 14 interposed between the base 12 and the plate 7, thereby holding the base of the bracket spaced from the plate 7. These interengaging parts may be well lubricated, so that the bracket will easily and freely oscillate a limited distance. Projecting from the marginal edge of the circular base of the bracket is a projection 15, the end of which is provided with oppositely disposed upwardly extending long and short arms 16 and 17. The long arm 16 has at its upper end an overhanging curved hook 18, to be engaged by an operator's finger for resetting the oscillatory frame or bracket. The short arm 16 is provided with a substantially key-hole shaped slot 19, in the larger end of which a suit-

able buffer 20, constructed of any suitable fiber, either leather or rubber, adapted to engage the marginal edge of the turn table 2, to stop the same, as the stylus or needle 6 reaches the end of the sound groove of the record. A nut 21 is threaded on the upper end of the bolt 11, to hold the circular base of the bracket or frame on the bolt. Rising upwardly from the plate 7 is a lug 22, and rising upwardly from the edge of the projection 15 of the base of the bracket is a lug 23. Connecting the upper ends of the lugs 22 and 23 is a tension spring 24, which, when the bracket or frame is disposed as in Fig. 1 with the buffer out of contact with the turn table, contacts slightly to one side of the center of the bolt 11, so as to hold the buffer out of contact with the table. However, when the frame or bracket is tilted to the position shown in Fig. 2, the spring 24 contracts slightly on the opposite side of the center of the bolt 11, thereby holding the buffer frictionally in contact with the turn table and acting to stop the same. The circular base 12 of the frame or bracket, adjacent its marginal edge, is provided with a cut-away portion 25 having shoulders 26 and 27 at the ends of the cut-away portion. The lug 22 is disposed so as to play between the shoulders 26 and 27 of said cutaway portion. Therefore, the shoulder 27 contacts with the lug 22 when the bracket or frame is in the position shown in Fig. 1, thereby holding said bracket in such position. When the bracket or frame is tilted, it moves so that the shoulder 26 approaches to lug 22 and will contact with said lug, provided the record supporting table be removed, when the spring 24 has contracted on the side of the bolt 11 nearest the table supporting spindle. However, as long as the table 22 remains in place, the shoulder 26 remains out of contact with the lug 22. Extending upwardly from the circular base of the bracket or frame, is an upstanding arm 28 having a right angle extending portion 29, which is provided with an upright disposed disk 30 having a dial 31 on one face. An abutment screw 32 has its shank 33 (which may be provided with any suitable number and pitch of threads) threaded through the center of the disk 30. The screw shank is provided with a reduced part 34 on which a collar 35 is mounted. A knurled head 36 is threaded on the reduced part 34, to hold the collar 35 closely in contact with the shoulder 37 at the point where the reduced part 34 axially extends from the screw. The collar 35 in its wall has an opening 38, in which the angular arm or member 39 is secured in any suitable manner. The lateral portion 40 of the arm 39 overlies and is disposed adjacent the marginal edge of the disk 30, so as to coöperate with the graduations of the dial. In the operation of the device, it is first found at what graduations the sound grooves of various records end, or terminate. The predetermined graduations, according to the various records, having been ascertained, the record is placed upon the turn table and the screw 32 adjusted, so that the lateral portion 40 of the arm 39 may be arranged accordingly. The tone arm is then placed so that the stylus or needle may follow the sound groove, and when the needle reaches the end of the groove according to the predetermined graduation, the tone arm simultaneously contacts with the abutment screw, which causes the bracket or flange to tilt, causing the buffer to frictionally contact with the marginal edge of the turn table, thereby instantly stopping the same.

The invention having been set forth, what is claimed as new and useful is:—

1. In a stopping device for talking machines, an oscillatory spring tensioned bracket having a brake buffer designed to frictionally contact with the marginal edge of the turn table, said bracket having a dial thereon, and an adjustable abutment screw threaded through the center of the dial and in a plane of the swing of the tone arm to be engaged thereby, said abutment screw having an arm to be set according to a predetermined graduation of the dial, whereby as the stylus reaches the end of the sound groove, said tone arm will engage the screw and oscillate the frame.

2. In a stopping device for talking machines, a supporting plate, an oscillatory bracket pivotally mounted on said plate, the base of the bracket and the plate, each having an upstanding lug, said lugs being diametrically oppositely disposed, said bracket having a brake buffer adapted to engage the marginal edge of the turn table, a spring connecting said lugs to tension on one side of the pivot of the bracket to hold the buffer out of contact with the turn table, and means carried by the bracket to be engaged with the tone arm, as the stylus reaches the end of the sound groove, thereby tilting the bracket and causing the spring to tension on the other side of the pivot to apply the brake buffer to the marginal edge of the turn table.

3. In a stopping device for a talking machine, a support on the casing of said machine, an oscillatory bracket pivotally mounted on the support, the base of the bracket and the support, each having an upturned lug, said lugs being diametrically disposed, said bracket having a brake buffer, a spring connecting said lugs to tension on one side of the pivot of the bracket, whereby the buffer is held out of contact with the turn table, a dial on said bracket, and means threaded through the dial and adapted to be set to a pre-determined graduation of the

dial, whereby, as the stylus reaches the terminus of the sound groove, the tone arm will contact with said means and cause the spring to contract on the other side of the pivot, whereby the buffer will frictionally contact with the turn table.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JAMES SIDNEY LANE.

Witnesses:
F. W. SITTON,
J. W. HERRON.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."