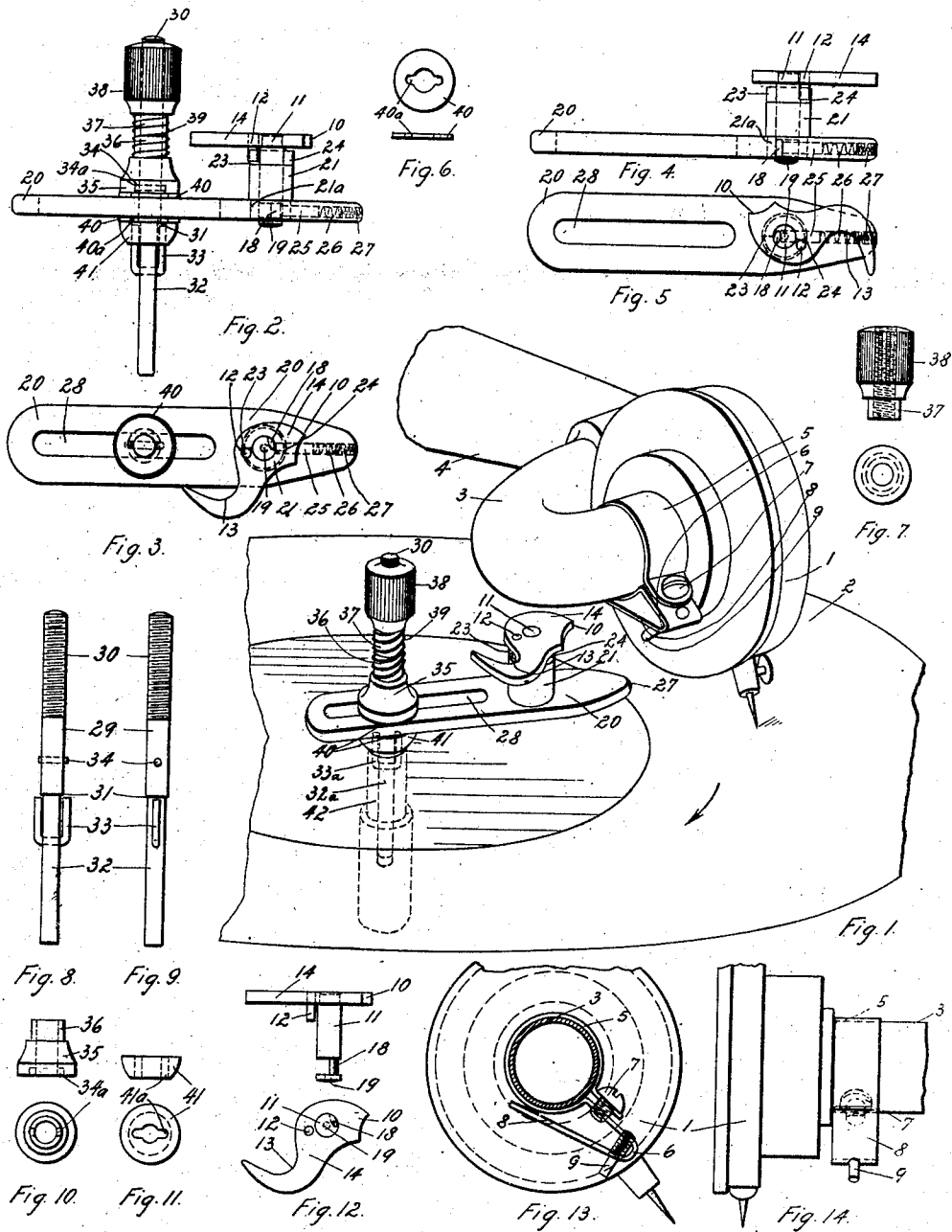


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 AUTOMATIC CUT-OFF AND STOP FOR SOUND REPRODUCING MACHINES.
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1,006,517.

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WITNESSES:

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AUTOMATIC CUT-OFF AND STOP FOR SOUND-REPRODUCING MACHINES.

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Specification of Letters Patent.

Patented Oct. 24, 1911.

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To all whom it may concern:

Be it known that I, WILFORD G. ALTENBURGH, a citizen of the United States, residing at National City, in the county of San Diego and State of California, have invented certain new and useful Improvements in Automatic Cut-Offs and Stops for Sound-Reproducing Machines, of which the following is a specification.

My invention relates to an improved automatic cutoff and stop for sound reproducing machines and is more particularly adapted to machines using the disk record.

The objects are: to provide a simple, cheap, safe, and positive means for automatically raising the needle and stopping the machine at the end of the record, or at any predetermined point when desired. Further, it is adjustable to different records and it is adaptable to the different makes of machines now in use and may be used therewith.

The uses and advantages of my invention will be readily apparent from the following description, reference being had to the accompanying drawings, in which:—

Figure 1 is a partial perspective view of a sound reproducing mechanism and showing my automatic cutoff and stop complete as used therewith: Fig. 2 is an elevational view of part of my device assembled: Fig. 3 is a top view thereof: Fig. 4 is a side elevation partially disassembled: Fig. 5 is a top view thereof: Fig. 6 is a plan and side elevation of a leather washer 40: Fig. 7 is a side and plan view of thumb nut 38: Figs. 8 and 9 are side views of spindle 32,—the one transverse to the other: Fig. 10 is a side and plan view of the upper arm clamp 35: Fig. 11 is a side and plan view of the lower arm clamp 41: Fig. 12 is a side and plan view of a catch device: Fig. 13 is a side view of a sound box with its needle and showing my cutoff and stop clamp thereon and Fig. 14 is a transverse elevational view thereof.

Similar characters of reference refer to similar parts throughout the several views.

My device is composed of two assembled parts, one of which is attached to the central vertical post of the machine, while the other is attached to the sound tube of said machine.

1 represents the sound box with the needle, 2 a disk record, 3 a sound tube and 4 a portion of a horn, all of which are of the ordinary style.

Around the sound tube 3 and adjacent to the sound box 1 is placed a clamp 5 adapted to be clamped tightly thereon by means of screw 7. One portion of said clamp is extended and formed into a short turn at 6 then backward under said sound tube 3, thus producing an inclined tongue 8 adjacent to said bend 6. Screwed into both members and extending downward, is stop pin 9.

In the central vertical post 42 of the machine, I have provided a central hole and near its top have extended the sides of said hole so as to fit the spindle 32 and pin 33 therein. This keeps the spindle 32 from turning after its insertion into said vertical post 42. Over spindle 32 and pin 33 is placed an arm clamp 41 shaped as shown at 41^a, to fit the pin 33, and it sets against the shoulder 31 of the spindle 32 and rests upon the top of the central post 42. Above said arm clamp 41 is placed another arm clamp 35 upon said spindle 32, with an extended portion 36 which extends upward and in the lower side is provided with slot 34^a adapted to fit over pin 34 which extends through spindle 32 and guides the upper arm clamp 35. The top end of said spindle is provided with a thread 30 on which thumb nut 38 is adapted to screw. The portion 37 extends downward adjacent to portion 36. Over portions 36 and 37, a compression spring 39 is placed, for the purpose of keeping a slight tension on the upper arm clamp 35, when the thumb nut 38 is released, for adjusting the arm 20 between the two arm clamps 35 and 41. On said spindle 32 is placed adjusting arm 20 and washers 40, one on each side, for the purpose of binding the arm 20 when the nut 38 is tightened. Said adjusting arm 20 is provided with a slot 28, a trifle wider than the spindle 32, and adapted to allow adjustment of the arm 20 endwise. Upon the extended end of said arm 20, near the end, is mounted a catch 14 upon stud 11, on the lower end of which, is provided an eccentric 18, which is operated by means of spring 26 on pin 25. Said spring 26 is held in position by means of screw 27. Around stud 11 and attached to arm 20 is bushing 21, which is cut down on its one side, and the shoulders thereof act as stops for a pin 12 which is set in catch 14. It can readily be seen that with this method of construction, after adjusting the clamp 5 upon tube 3, then setting the needle in the end of the record groove, with nut 38 released and set-

ting point 10 of the catch in bend 6 of the clamp, then tightening thumb nut 38 and starting the machine as usual, when point 10 slightly touches the inside of bend 6 it will move it sufficiently to throw the eccentric 18 over the center, which gives the spring 26 a chance to expand, the catch 14 will be thrown around, one half turn, until pin 12 strikes shoulder 24,—in the position shown in Figs. 4 and 5,—and when the machine comes around again, the curve 13 on catch 14 will come in contact with tongue 8, thus gradually raising the needle and later striking catch pin 9 which stops the machine. Having thus described my invention, what I claim and desire to secure by Letters Patent is:—

1. A talking machine comprising a rotative record disk and a reproducer movable relatively thereto, a catch mounted upon and adjustable radially of said disk, to rotate therewith and means including an inclined member mounted upon said reproducer and operative to interlock with said catch to raise the reproducer and stop the record disk, all substantially as set forth.

2. In a sound reproducing machine, the combination of a center post, a spindle set vertically in a hole in said center post, an arm provided with a slot and mounted upon said spindle, a pin on said spindle to prevent its turning relatively to the post, clamps on said spindle on each side of said arm, means for tightening said clamps, a stud set on the extended end of said arm, a catch mounted thereon, said stud being provided with an eccentric for turning said catch one-half turn, means for stopping said catch at each end of the one-half turn, a sound tube, a clamp adjustably mounted on said sound tube, an extended normally inclined tongue in connection with said clamp, and a pin on said tongue, said tongue and pin being adapted to operate in connection with said catch, to raise the needle and then stop the machine, all substantially as set forth.

3. In a sound reproducing machine, the combination of a center post, a spindle provided with a pin to prevent its turning set in said center post, an arm provided with a

slot and mounted upon said spindle, clamps on said spindle on each side of said arm, a thumb nut screwed on the top end of said spindle for tightening said clamps, a spring to provide slight tension on the clamp at all times, a catch mounted on a stud set in the extended end of said arm, said stud being provided with an eccentric for turning said catch one-half turn, spring means for operating said eccentric, a bushing with shoulders for stopping said catch at each end of the one-half turn, a sound tube, a clamp adjustably mounted on said sound tube, an extended normally inclined tongue in connection with said clamp and a pin on said tongue, said tongue and pin being adapted to operate in connection with said catch to raise the needle and then stop the machine, all substantially as set forth.

4. In a sound reproducing machine, a mechanism for raising the needle and later stopping the machine, comprising, a sound tube, an inclined tongue on said tube, a center post, a vertical spindle set into a hole in said center post, means for preventing its turning therein, a slidable arm provided with an adjusting slot on said spindle, clamps provided with washers on their faces for holding said arm in its adjusted position, a nut on the top end of said spindle for tightening said clamps, a tension spring adapted to provide tension on said clamp for the purpose of holding said arm in position when the nut is released, a vertical stud on said arm, an eccentric on said stud, spring means for operating said eccentric, a catch adapted to operate in connection with said inclined tongue, a bushing provided with shoulders adapted for stopping said catch mounted on said arm, a pin in said tongue and clamp means for attaching said pin and said tongue to said sound tube, all substantially as set forth.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

WILFORD G. ALTENBURGH.

Witnesses:

ERNEST L. BULLEN,
GUY A. RAYMOND.