Dec. 23, 1941. L. Z. LA FOREST 2,267,674

PHONOGRAPH

Filed Sept. 21, 1940 2 Sheets-Sheet 1

Fig. 1

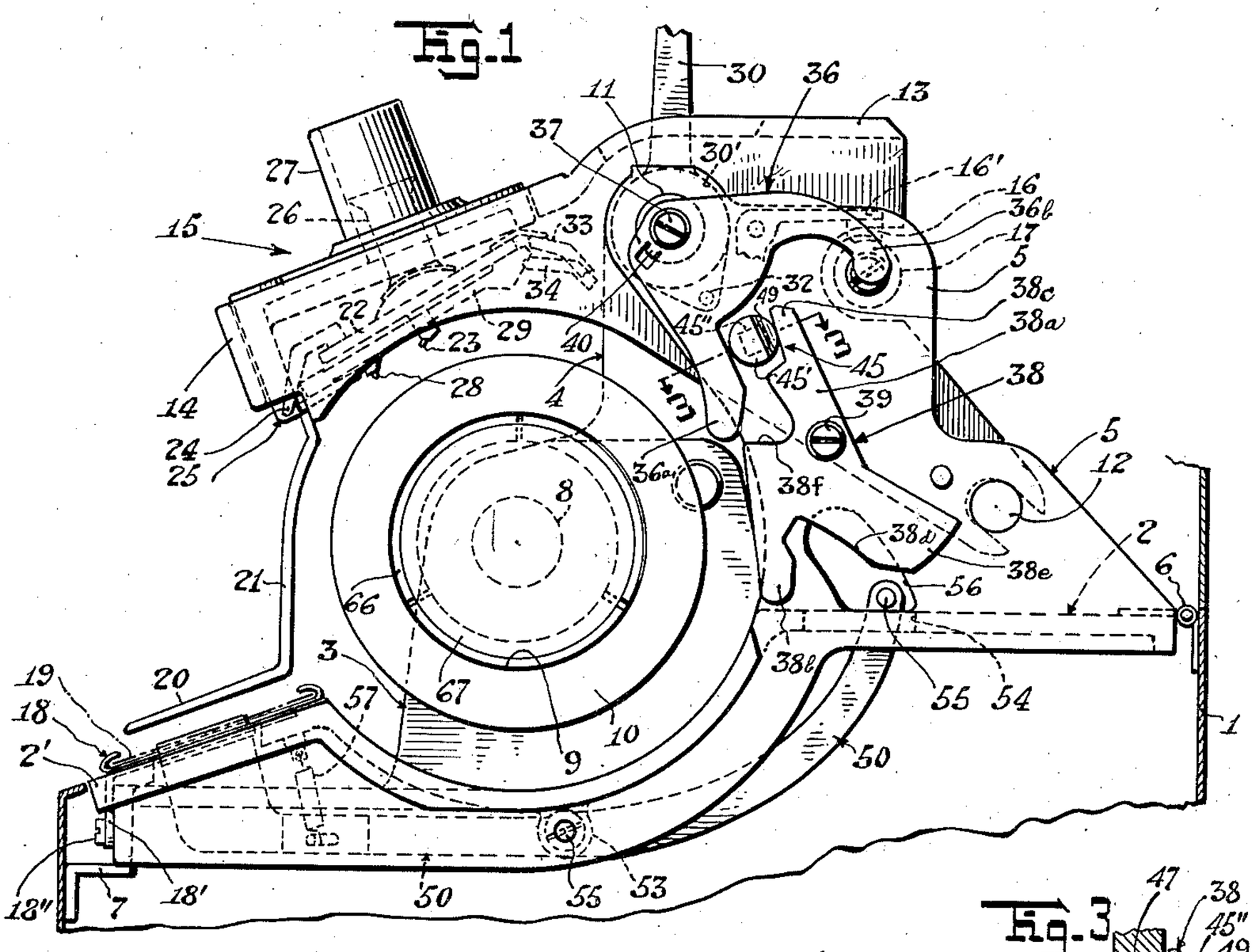


Fig. 3

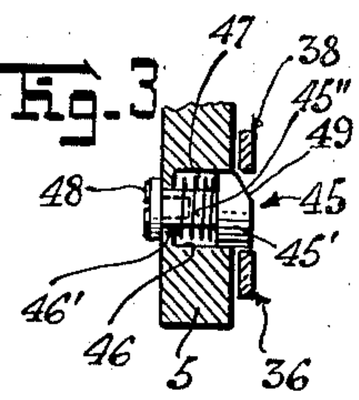
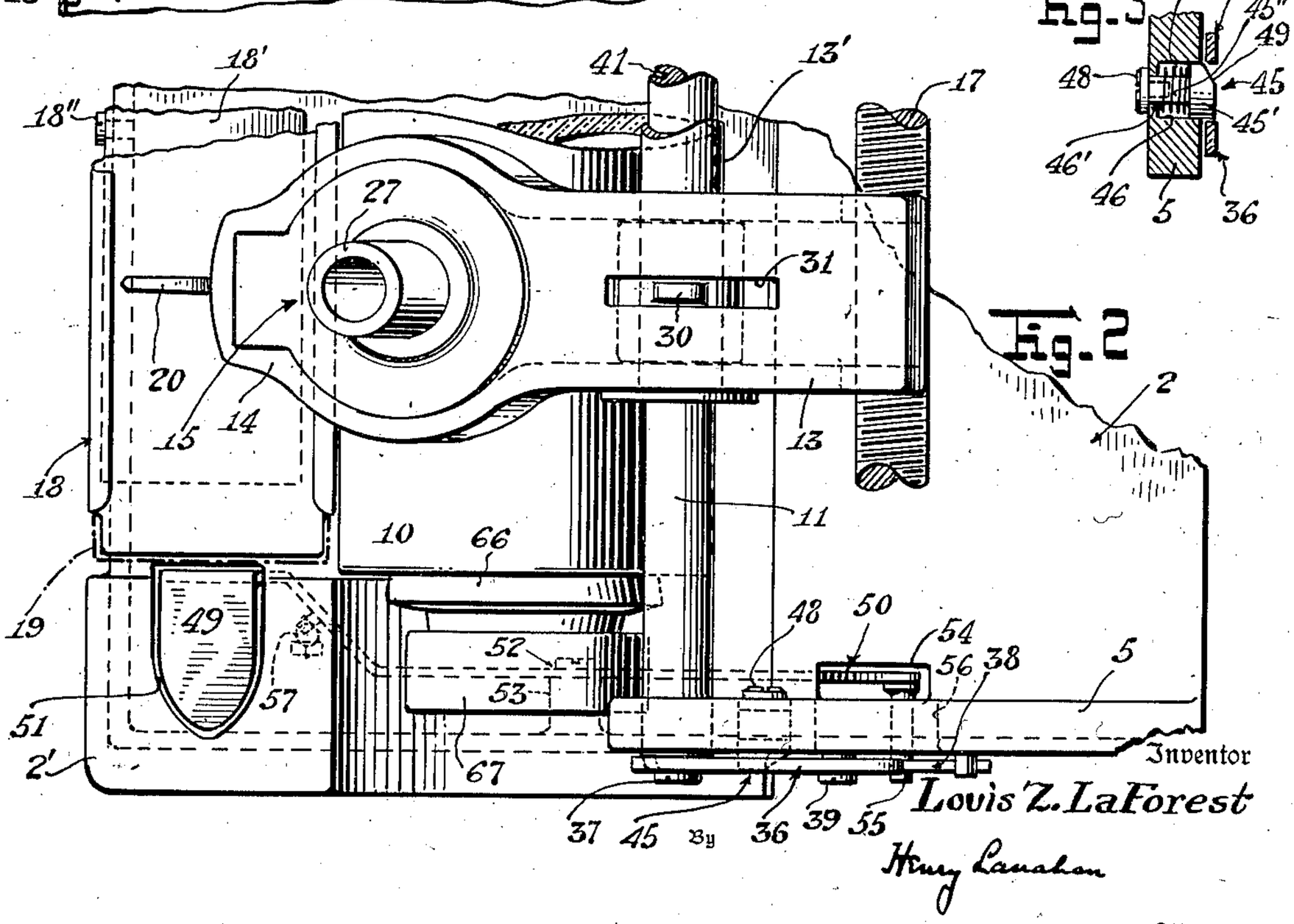


Fig. 2



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PHONOGRAPH

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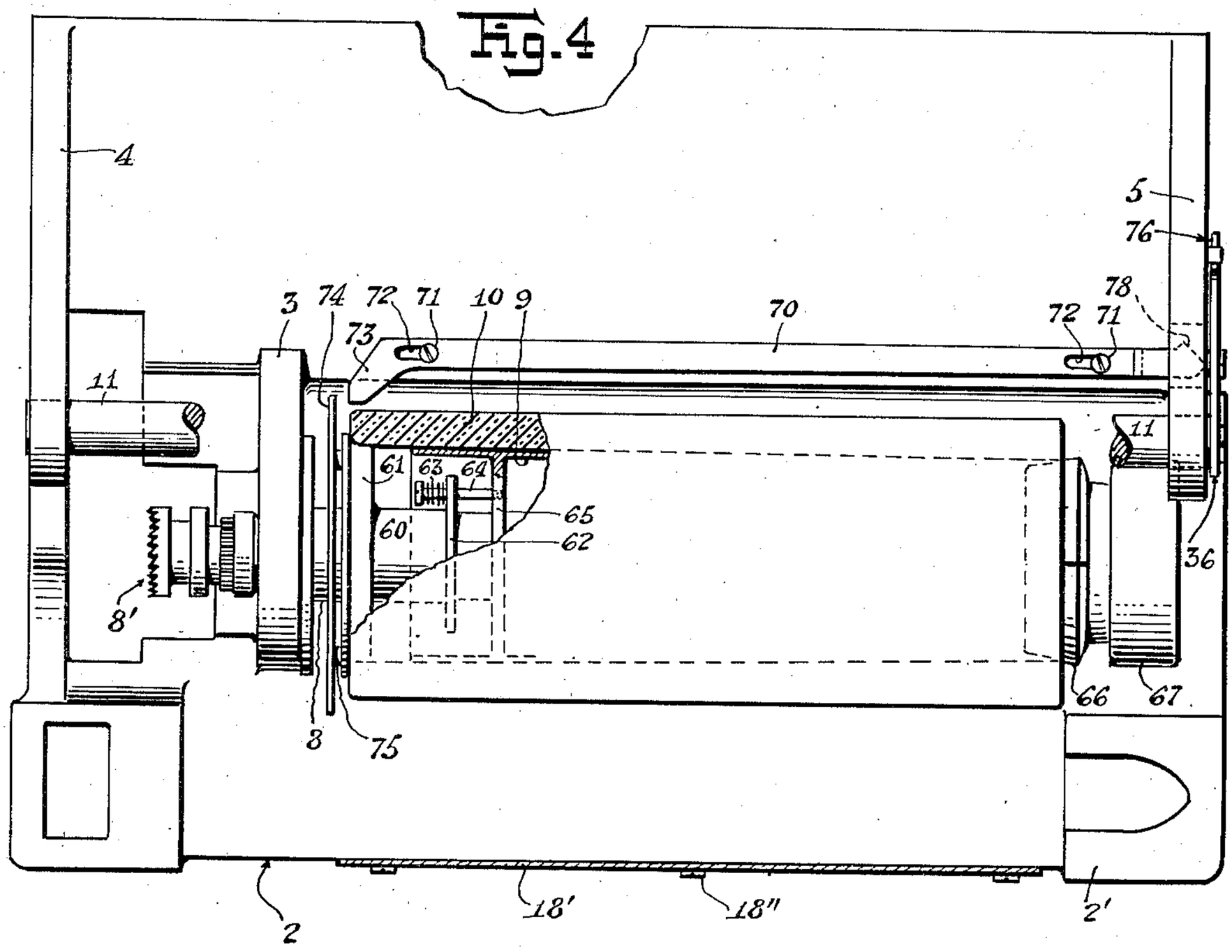
Fig. 4



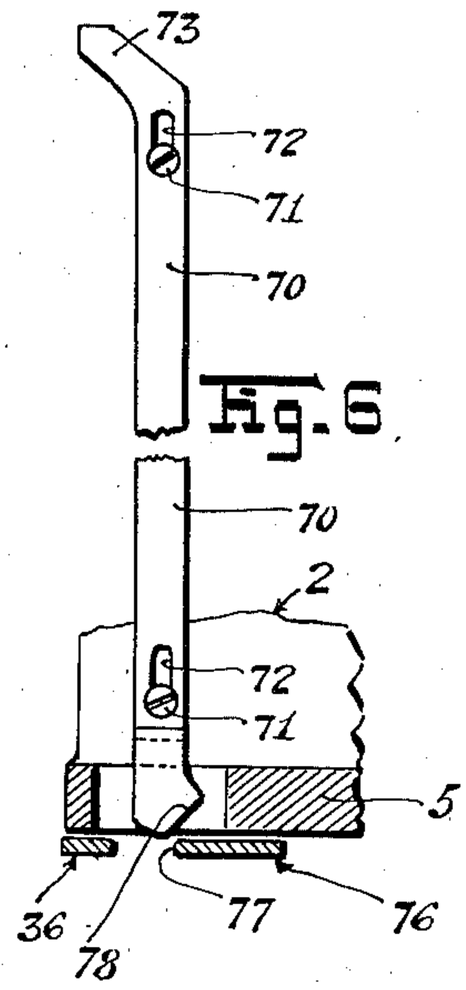
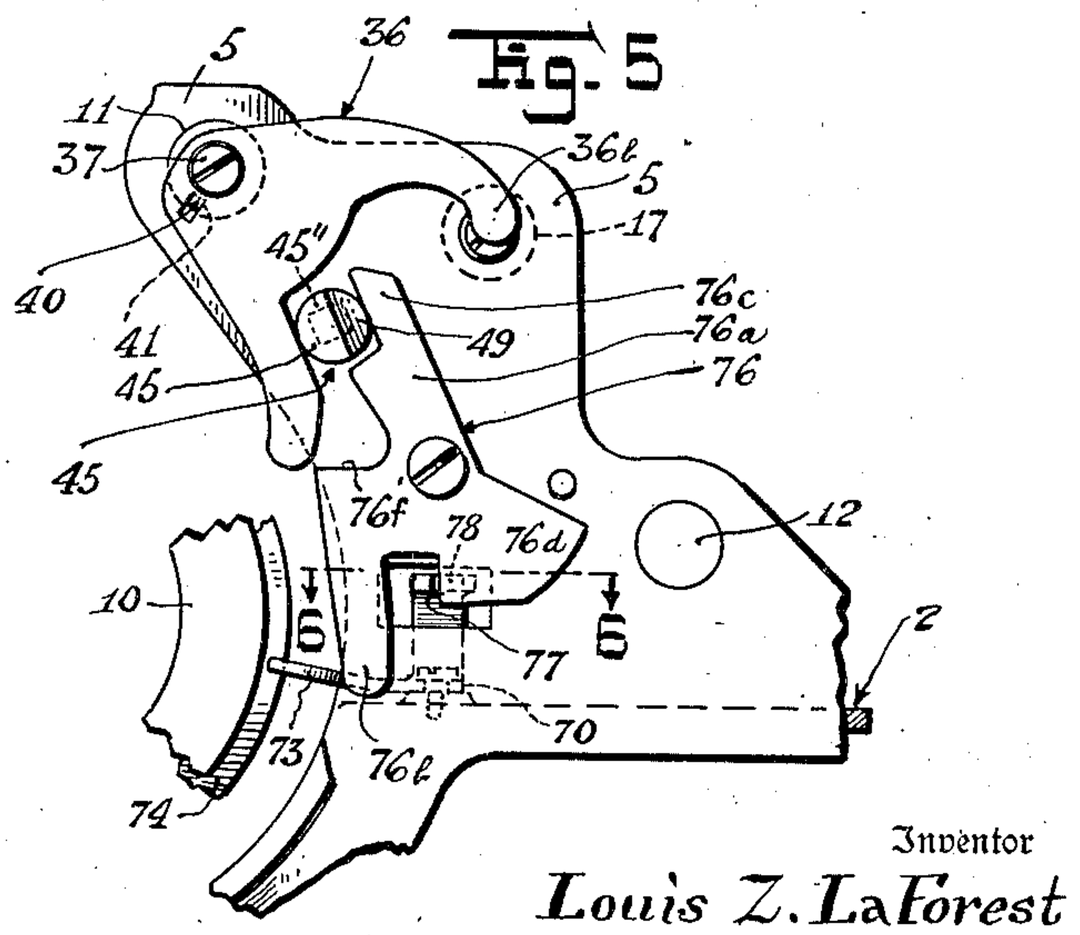


Fig. 6

Fig. 5



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Patented Dec. 23, 1941 2,267,674

UNITED STATES PATENT OFFICE

2,267,674

PHONOGRAPH

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Application September 21, 1940, Serial No. 357,713

18 Claims. (Cl. 274—17)

This invention relates to phonographs and more particularly to commercial phonographs such as dictating machines. The invention is especially concerned with new and improved means for controlling such machines and for safeguarding the same against misoperation.

Dictating machines are usually constructed so as to be selectively operable either to record or to reproduce dictation. The reproducing function is provided, in particular, to permit the operator, while in the course of recording dictation, to reproduce portions of previously recorded matter, such facility to reproduce being especially valuable in permitting the operator to "listen-back on" his dictation and thus reconstruct in his mind the line of his thoughts. The conditioning of the machine for the reproduction of such previously recorded matter usually involves shifting the translating device from recording condition to inoperative condition, then backspacing the device along the record to the desired point, and thereafter shifting the device from inoperative condition to reproducing condition. Since the type of translating device commonly employed in dictating machines is effective either to cut or emboss the record when it is in recording condition, it is clear that should the operator mistakenly shift the device back to recording instead of to reproducing condition, after the device has been backspaced, and then resume the operation of the machine, the device would cause an obliteration of the recordation. It is thus important, particularly in view of dictating machines being generally used by laymen who frequently are unfamiliar with the mechanics and operation of the machine, that some suitable means be provided to insure against misoperations of the machine such, for example, as would result in damage to the recordation. Various arrangements have been proposed for safeguarding the machine against such possible misoperations. These arrangements have been effective but very complicated. I have found however that with but a slight sacrifice in effectiveness the complexity of such safeguarding arrangements can be greatly simplified.

It is thus an object of my invention to provide a novel and simple mechanism which will in practice substantially fulfill the objective of the safeguarding arrangements abovementioned.

It is another object to provide such mechanism in a form which is readily adaptable to conventional dictating machines without involving any change in the basic arrangement of such machines.

It is a further object to fulfill the desired function above expressed largely through the medium of the normally provided parts of the machine.

A particular object of my invention is to restrict the shifting of a recorder-reproducer translating device between its respective conditions to a predetermined sequence.

It is another object to cause the translating device and/or control means to be relieved of the restriction just mentioned when the device has been shifted from a reproducing condition, and further to cause the restriction to be restored when the device has been shifted from a recording condition.

It is a further object to place the restrictive means into inoperative condition as an incident to the conditioning of the machine for operation on a new or subsequent record, and it is a feature of my invention to so affect the restrictive means either by a change of record on the machine or by a change of the usually provided index slips in their holder.

Other objects and features of my invention lie in various combinations of elements hereinafter described in detail and will more fully appear from the following description and the appended claims.

In the description of my invention reference is had to the accompanying drawings, of which:

Figure 1 is a fractional side elevational view of a dictating machine incorporating my invention;

Figure 2 is a fractional top plan view of the mechanism of Figure 1;

Figure 3 is a detailed sectional view taken substantially along the line **3—3** of Figure 1;

Figure 4 is a partial top plan view of a dictating machine illustrating a modification in a feature of my invention;

Figure 5 is a fractional right-hand elevational view of the mechanism of Figure 4; and

Figure 6 is a detailed sectional view taken substantially along the line **6—6** of Figure 5.

Reference being had to Figures 1 and 2 there will be seen a dictating machine of a well-known conventional type housed within a cabinet **1** partially shown. The machine has for its frame a base **2** provided with an intermediate upright standard **3**, and with left and right upright standards **4** and **5**, this frame being hinged as at **6** to the rear wall of the cabinet and supported by the front wall of the cabinet by way of a bracket **7**. Journalled in the intermediate standard **3** is a shaft **8** of a mandrel **9** adapted to carry a cylin-

drical record 10 which as a typical case is made of a wax-like material; and supported by the left and right standards 4 and 5, in parallel relation to the mandrel 9, is a pair of front and back rods 11 and 12 of which the front rod is journalled in the standards 4 and 5 for reasons which will hereinafter be apparent. These rods slidably support a carriage 13 for movement along the record, the carriage being slid directly on the back rod and mounted on the front rod by way of a sleeve 13' which slidably embraces the front rod. The carriage has a forwardly extending arm 14 overlying the record 10 and apertured to receive a phonographic translating device 15. A driven movement of the carriage 13 along the record is effected through the medium of a feed nut 16 and cooperating feed screw 17 of which the feed nut is movably mounted on the carriage by way of a pivoted bracket 16' and the feed screw is rotatably supported by the standards 4 and 5. The feed screw and record-supporting mandrel are rotated concurrently, through the medium of a clutch 8' partially shown, by a suitable drive means which is not herein necessary to show.

At the front of the record on the right-hand side of the machine a portion 2' of the base 2 is raised slightly and downwardly inclined to the front, and extending laterally across the front of the machine in parallel relation to the top surface of the base portion 2' is a holder 18 for an index slip 19, the holder being supported by way of a bracket 18' which is secured to the front of the base 2 by the screws 18''. The index slip is provided for the purpose of receiving explanatory remarks or annotations with respect to particular portions of the matter recorded on the record; these remarks are made, for example, by a pencil (not shown) with the aid of a guide member 20 extended transversely across the slip and carried by a bracket 21 which depends from the carriage arm 14 at the front of the record.

The mandrel 9 is preferably provided with a record holding and ejecting mechanism of the type disclosed in Gramann Patent No. 2,010,717, issued August 6, 1935, and entitled "Phonograph" and to which reference may be had for a description of this mechanism in all its details. This mechanism, which is herein fractionally shown in Figure 4, may be sufficiently described in the present instance as follows: A flanged sleeve 60 is slidably mounted on the mandrel shaft 8 at the left or inner end of the mandrel; this sleeve is provided at its left end with an ejecting head 61, which is adapted to abut against the inner end of the record, and at its right end with a small annular flange 62. The sleeve 60 is biased rightwardly so as to urge a mounted record off from the mandrel. This biasing of the sleeve 60 is accomplished by means of a compression spring 63 mounted on a screw 64 which extends through the flange and threads into a web 65 on the mandrel, the spring being interposed between the head of the screw and the flange 62. At the open end of the mandrel there is provided an expansible and contractible chuck 66 which is biased into expanded position but latchable in contracted position and controlled in the release of its latching by the sleeve 60. Also at the right end of the mandrel there is provided a knob 67 which is manipulatable to compress the chuck 66 into contracted position. When a record is moved over the mandrel into mounted position the head 61 is impinged upon by the record and the sleeve 60 is moved leftwardly and in response to this movement of the sleeve the chuck is released from contracted position. Upon the release of the chuck it expands, in response to its biasing, to grip the record and hold the same in mounted position on the mandrel. When the chuck is thereafter contracted by means of the knob 67 the flanged sleeve 60 moves rightwardly by reason of its biasing to eject the record from the mandrel and in response to this movement of the sleeve the chuck is again latched in contracted position.

The translating device herein illustrated is a combined recorder-reproducer unit of a well-known type such as is illustrated and described in Somers Patent No. 2,212,672, dated August 27, 1940, and entitled "Phonograph" and to which reference may be had for a description of the device in its details. This device comprises a sound box 22 which is provided with a recorder stylus 23 and pivoted to a frame 25 of the device, as at 24, for movement toward and away from the record. The sound box 22 is sound coupled through a tube 26 to a neck 27 extending upwardly from the frame 25. It is by way of this neck that sound is communicated to the device during recording and from the device during reproducing. The translating device is also provided with a reproducer stylus 28 which is usually spaced circumferentially about the record from the recorder stylus and in addition slightly behind the recorder stylus in respect of the direction of advance of the device along the record. This reproducer stylus is provided with a biasing weight 29 which like the sound box 22 is pivoted at 24 to the frame 25 for movement toward and away from the record.

The translating device is so arranged that when both the sound box 22 and reproducer stylus biasing weight 29 are released to move down onto the record the recorder stylus 23 operatively engages the record and the device is conditioned for recording; that when the sound box 22 is retained in a raised position and the biasing weight 29 is released, then the weight is rendered effective to bias the reproducer stylus against the record and to place the device into a condition for reproducing; and that when both the sound box 22 and biasing weight 29 are retained in raised positions, as shown in Figure 1, then both the recorder and reproducer styli are held out of engagement with the record and the device is placed into inoperative condition. When the device is in recording condition, it is effective to produce a progressive groove on a rotating record bearing modulations in accordance with the sound vibrations communicated to the device; and when the device is in reproducing condition, it is effective to generate sound vibrations in accordance with the modulations of such record groove as the groove is progressively tracked by the reproducer stylus.

The conditioning of the translating device 15 and the shifting of the feed nut 16 into and out of engagement with the feed screw 17 is controlled by a control lever 30 moved with the carriage 13 and having a hub portion 30' which embraces the carriage sleeve 13'. The control lever extends upwardly from its hub portion through an opening 31 in the top of the carriage and may be rocked forwardly and rearwardly from a neutral or inoperative position shown in Figure 1 into respective positions hereinafter referred to as the recording and reproducing positions of the lever. The control lever is coupled to the translating device and to the feed nut 16 by a coupling means not herein necessary to be fully described as such coupling means is well

known, a typical form thereof being, for example, fully described in the Somers patent above referred to. Sufficient for the present purpose is the statement that this coupling means is so arranged that when the control lever is rocked between inoperative positions into recording and reproducing positions, the translating device is shifted between inoperative condition and its respective operative conditions for recording and reproducing, the shifting in the condition of the translating device being effected as by a camming action between a cross pin **32** on the hub portion **30'** of the control lever and lifting arms **33** and **34** (fractionally shown) which are respectively associated with the sound box **22** and biasing weight **29**. Also when the control lever is shifted between inoperative position and its recording and reproducing positions the feed nut **16** is moved into and out of engagement with the feed screw, as by a camming action of the pin **32** on the support bracket **16'** for the feed nut. Thus, when the control lever is shifted into recording and reproducing positions the translating device is respectively conditioned for recording and reproducing and also in each case the feed nut is engaged with the feed screw; and when the control lever is returned from either recording or reproducing position to inoperative position the device is restored to inoperative condition and the feed nut is moved out of engagement with the feed screw.

The machine is provided with protective means to prevent a change of record on the machine while either stylus of the translating device is in a lowered position for engagement with a mounted record, such means serving to protect the record against being scratched and the styli against breakage during the mounting and removal of the record in relation to the mandrel. This protective means, in its general form, comprises a cam member **36** secured by a screw **37** to the right end of the carriage support rod **11** and a cooperating cam member **38** pivoted by a screw **39** to the outer side of the standard **5**. The cam member **36** is locked to the carriage support rod **11** by means of a lug **40** turned over from the member **36** into engagement with the end portion of a groove **41** provided in the rod **11** longitudinally thereof, and the control lever **30** is splined to the rod **11** by means of a screw (not shown) which is threaded through the hub portion **30'** of the lever into engagement with the groove **41**. Thus the lever **30** is coupled to the member **36** to cause the latter to move angularly and coordinately with the lever. When the control lever **30** is shifted into reproducing position a downwardly extending finger **36*a*** provided on the cam member **36** is swung forwardly into the path described by the record in the movement of the same onto and off of the mandrel, and when the control lever is returned to inoperative position the finger **36*a*** is moved rearwardly into a position beyond this record path, as into the position occupied by the finger in Figure 1. When the control lever **30** is moved to recording position the finger **36*a*** is moved rearwardly yet further beyond the path of the record; however, in the latter movement of the finger **36*a***, it impinges upon an upward projection **38*a*** of the member **38** and cams the member **38** in a clockwise direction. Such clockwise movement of the member **38** causes a downwardly extending finger **38*b*** thereof to be moved into the record path abovementioned. When the control lever is returned from recording position to inoperative position the finger **36*a*** is first slid along a surface **38*f*** of the member **38**, to cam the member **38** back to inoperative position, and is thereafter moved free of the member **38**. Thus, the member **36** serves to obstruct the record path when the translating device is conditioned for reproducing and the member **38** serves to obstruct this path when the device is conditioned for recording.

As heretofore referred to, in the course of the usual dictation recording operation the operator occasionally "listens back" on the record to portions of previously recorded matter as an aid in further formulating the dictation to be recorded. When the reproducer stylus **28** is spaced slightly behind the recorder stylus **23**, as aforementioned, the last bit of matter recorded may be reproduced by merely shifting the translating device from recording to reproducing condition and continuing the operation of the machine. Frequently, however, the operator will want to go back further and reproduce other prior portions of recorded matter. In this case the operator will have to shift the translating device to inoperative condition so as to free the recorder stylus from the record and the carriage from the feed screw, to then backspace the carriage to the desired point along the record and thereafter to shift the device into reproducing condition. When the translating device has been backspaced there is involved the danger of the operator returning, as by accident or mistake, the translating device to recording instead of to reproducing condition and then resuming the operation of the machine, in which case there would be caused an obliteration of the recordation, as aforementioned. It is found that in the usual case the greatest risk of the device being shifted into recording condition, while the device is backspaced, occurs at the instant when the condition of the device is to be shifted at the termination of the backspacing of the device; and that should the operator properly condition the device for reproducing at such termination of backspacing, he will thereafter likely reproduce through to the end of the matter recorded and thus avoid any further risk of shifting the translating device into recording condition while it is in a backspaced position. In accordance with my invention the machine is substantially safeguarded against possible misoperations such as are here mentioned by providing simple means to prevent the translating device from being shifted into recording condition in the next manipulation thereof following a backspacing of the device. This safeguarding is effected by the provision of restrictive means to prevent the translating device, when the same has been shifted out of recording condition, from being thereafter returned to recording condition except as an incident to a conditioning of the device for reproducing following such prior conditioning of the device for recording.

The restrictive means by which the function just stated is accomplished comprises a detent **45** which is positioned directly behind the position occupied by the obstructing finger **36*a*** when the control lever is in inoperative position (see Figure 1). The detent has a circular head **45'** and a non-circular or, for example, square shank **45''** of which the former is fitted in a circular recess **46** in the outer side of the standard **5** (see Figures 2 and 3) and the latter is extended through a square hole **46'** running through the standard from the bottom of the recess, the fitting of the

shank to the square hole being adapted to hold the detent angularly stationary. The recess is made considerably deeper than the thickness of the head 45′ of the detent to permit the detent to be moved inwardly into an inoperative position wherein the head 45′ will lie wholly within the recess. The detent is, however, normally held in an outward or operative position by means of a compression spring 47 interposed between the head 45′ and the bottom of the recess 46, the operative position of the detent being defined by the contact of the standard 5 with the head of a screw 48 threaded into the end of the shank 45″.

When the detent is in its outer or operative position it lies in the path of the finger 36*a* to obstruct the control lever 30 against movement into recording position. When the control lever is, however, moved to reproducing position, a rearwardly extending finger 36*b* of the member 36 is swung downwardly against the back side of the projection 38*a* on the member 38 to cam the member slightly in a counter-clockwise direction. In this counter-clockwise movement of the member 38, an upward extension 38*c* on the projection 38*a* slides over a cam face 49 on the head 45′ of the detent to cam the detent inwardly out of the path of the finger 36*a*. As the control lever is next returned from reproducing position to inoperative position, the member 38 is held stationary, by reason of the friction between it and the detent, and the detent is thus retained in inoperative position to permit a subsequent conditioning of the translating device for recording. When the translating device is next conditioned for recording, the finger 36*a* impinges against the member 38 and cams its extension 38*c* off from the detent. The detent will then bear against the finger 36*a*. When the translating device is thereafter returned from recording condition to inoperative condition the finger 36*a* slides off from the detent and the detent is restored to operative position in response to its biasing. This restoration of the detent causes the translating device to be again locked against being shifted into recording condition until it is thereafter again shifted into reproducing condition.

In considering the functioning of the mechanism just described in terms of the actual use of the dictating machine, it will be seen that when the translating device is backspaced, as for the purpose of reproducing portions of previously recorded matter, the operator is prevented from next restoring the translating device to recording condition. When, however, the operator has shifted the device to reproducing condition to reproduce the portion of recorded matter selected he may thereafter restore the translating device to a recording condition to continue the recording operation.

It will be seen to be a characteristic of the machine so far described that when the translating device has been last employed for recordation and is returned along the record to initial position for further recordation, as on a newly mounted record, then the restoration of the device to recording condition following its return to initial position will have to be effected by first manipulating the device into its reproducing condition. Such enforced manipulation of the device into reproducing condition as an incident preceding a conditioning of the device for recording may be utilized in a beneficial manner as for warning purposes. It may, however, be desirable to avoid the need for such extra manipulation of the device to condition it for recordation on a newly mounted record, and for this reason I have provided means by which the detent 45 is placed into inoperative position as an incident to the reconditioning of the machine for subsequent operation on a newly mounted record. In accordance with my invention this is accomplished through the medium of a usual and customary operation performed on the machine in each such reconditioning thereof. Since each record is provided with an index slip, and the index slip is changed in its holder with each change of the respective record on the mandrel, in each reconditioning of the machine for operation on a newly mounted record, I may cause the detent to be placed into inoperative position either by a change of the index slip in its holder or by a change of record on the mandrel. A means for accomplishing this result as an incident of a change of index slip, which comprises an interference piece positioned adjacent the end of the slip which is gripped by the fingers in removing the slip from its holder, is now described.

Reference being had to Figures 1 and 2 it will be seen that the holder 18 is in the form of a long strip provided with folded-over side edges which are adapted to grip the sides of an index slip, and that the slip is inserted into the holder and removed therefrom by sliding the slip over the inclined base portion 2′ into and out of the right end of the holder. The interference piece just mentioned comprises a fingerpiece 49 which normally projects upwardly through an opening 51 provided in the base portion 2′ at a place directly to the right of a mounted slip. The fingerpiece 49 is carried by a lever 50 which extends from front to back beneath the base 2 and which is pivoted centrally thereof, as at 52, to a boss 53 extending down from the base. The rearward portion of the lever is curved upwardly through an opening 54 provided in the base 2 directly in from the standard 5, and carried by the lever at the end of its rearward portion is a cross pin 55 which extends laterally through an opening 56 in the standard 5. The pin lies directly below a cam extension 38*d* on the member 38. This cam extension is shaped so that when the pin is moved upwardly thereagainst the member 38 will be rocked slightly to place the detent in inoperative position as in the manner heretofore described. The pin is, however, normally retained in contact with the bottom of the opening 56 away from the cam extension 38*d* by means of a tension spring 57 connected between the lever 50 and the base 2. In this biased position of the lever the fingerpiece 49 projects upwardly to a level slightly above that occupied by the slip in its holder, as shown in Figure 1.

During the course of a change of slip in the index slip holder, as for instance when a slip is gripped by the finger to remove it from the holder, the operator will push the fingerpiece 49 downwardly. Such downward movement of the fingerpiece causes, through the rocking of the lever 50 and the resultant camming of the pin 55 against the cam extension 38*d*, the member 38 to cam the detent into inoperative position. Thus, as an incident to each change of slip in its holder the translating device is rendered free to be shifted into recording condition.

Extending rearwardly from the cam extension 38*d* is a projection 38*e* having its lower edge arcuately shaped with respect to the pivot axis of the member 38. When the translating device is in recording condition the member 38 is turned

as aforementioned and the projection 38*d* is moved directly above the pin 55 to obstruct the lever 50 and to lock the fingerpiece 49 in interfering position in relation to the slip. This locking of the fingerpiece in interfering position informs the operator, should he attempt to change the slip in its holder, that the translating device is in operative condition. Such information to the operator serves, for example, to warn him, in advance, against attempting to change the record on the mandrel while either of the styli are in position to engage the record.

An alternative means for placing the detent 45 into inoperative position upon a reconditioning of the machine for recording on a newly mounted record, which is now described, is operated as an incident to a change of record on the mandrel and is accomplished through the medium of the record-holding and ejecting mechanism hereinbefore described. Reference being had to Figures 4, 5 and 6 there will be seen a bar 70 which extends along the mandrel 9 rearwardly thereof and which is slidably mounted on the base 2, for movement in its longitudinal direction, by means of screws 71 passing respectively through slots 72 in the bar and threading into the base. The bar 70 and the ejecting head 61 of the record-holding and ejecting mechanism are operatively coupled together by a disk 74, secured to the ejecting head by studs 75, and a finger 73 on the left end of the bar which projects forwardly just to the right of the disk. When the head 61 is moved rightwardly to eject a record from the mandrel the disk 74 will thus impinge against the finger 73 and move the bar 70 rightwardly. Such rightward movement of the bar is adapted to cam a pivoted member 76 over the detent 45 to place the detent into inoperative position. It will be seen that the member 76 is analogous to the cam member 38 hereinbefore described in that the member 76 is provided with a projection 76*a*, finger 76*b*, extension 76*c* and cam surface 76*f* each respectively of the same shape as that of the projection 38*a*, finger 38*b*, extension 38*c* and cam surface 38*f* of the member 38. The member 76 is, however, differently shaped in respect of its lower rearward portion from that of the member 38, there being on the member 76 a downward projection 76*d*, to the rear of the finger 76*b*, which provides a substantially vertical camming surface 77. This camming surface 77 cooperates with a cam 78 provided on the right end of the bar 70, this cooperation being such that when the bar is moved rightwardly incidental to a record ejection the cam 78 impinges against the camming surface 77 and turns the member 76 slightly in a counter-clockwise direction to cam the detent 45 inwardly into inoperative position, as in the manner hereinbefore described. Thus, as an incident to a change of record on the mandrel the translating device is rendered free to be shifted into recording condition.

It will be seen, as a characteristic of the mechanism just described, that when the mandrel is free of a mounted record, the spring 63 of the record-holding and ejecting means acts to constantly bias the bar 70 into its rightward or actuated position. While the bar 70 is cammed leftwardly under these conditions by the member 76 and the camming surface 77 and cam 78 are moved out of operative relationship with one another (the nose of the cam 78 being slid along the back side of the member 76) when the translating device is conditioned for recording, the camming surface 77 and cam 78 are always restored to operative relationship when the translating device is shifted from recording to inoperative condition by reason of the member 76 being then cammed back to unoperated position through the medium of the finger 36*a* and camming surface 76*f*, as aforementioned. When this camming surface 77 is so restored to operative relationship to the cam 78, the latter, in response to the constant biasing of the bar 70, under the conditions here considered, will cam the member 76 over the detent 45 and place the detent in inoperative position. Thus as an incident to each shifting of the translating device from recording to inoperative condition, the detent is placed into inoperative position and the translating device is rendered freely returnable to recording condition in the next manipulation thereof following a shifting of the device from recording to inoperative condition. This ability to freely shift the translating device back and forth between recording and inoperative conditions when the mandrel is free of a mounted record is advantageous in facilitating the testing and servicing of the machines.

I have herein shown and described my invention in terms of certain preferred embodiments. It is intended however that these embodiments be illustrative and not limitative of my invention as the same are subject to many changes and modifications without departure from the scope of my invention, which I herein set forth according to the following claims.

I claim:

1. In a phonograph comprising a record-cooperating translating device placeable into an inoperative condition and respective operative conditions for recording and reproducing: the combination of control means for said device selectively operable to place the device into either of its respective conditions; and means operatively associated with said control means and restrictively influencing the same to prevent the device from being placed by said control means into and out of recording condition twice in succession.

2. In a phonograph comprising a record-cooperating translating device placeable into an inoperative condition and respective operative conditions for recording and reproducing: the combination of control means for said device operable to place the device into either of said conditions: and means operatively associated with and influencing said control means to render the same ineffective to shift said device back and forth twice in succession between a predetermined two of said conditions.

3. In a phonograph comprising a record-cooperating translating device placeable into an inoperative condition and respective operative conditions for recording and reproducing: the combination of control means for said device selectively operable to shift the device between inoperative condition and said respective operative conditions; and means, associated with said control means and operative when the device has been shifted out of a predetermined one of said operative conditions into inoperative condition, for rendering the control means ineffective in the next manipulation thereof to shift the device back into said one operative condition.

4. In a phonograph comprising a record-cooperating translating device placeable into an inoperative condition and respective operative

conditions for recording and reproducing: the combination of control means operatively connected with said device and effective to shift said device between inoperative condition and said operative conditions selectively; and means influencing said device in its conditioning to restrict the device from being shifted from inoperative condition to recording condition and back again twice in succession.

5. In a phonograph comprising a record-cooperating translating device placeable into an inoperative condition and respective operative conditions for recording and reproducing: the combination of control means operatively connected with said device and effective to shift said device between inoperative condition and said operative conditions selectively; and means operatively associated with and restrictively influencing said control means, when the same has been manipulated to shift the device from a predetermined one of said operative conditions to inoperative condition, to render the control means ineffective to shift said device back into said one operative condition until after the control means is next manipulated to shift the device into the other of said operative conditions.

6. In a phonograph comprising a record-cooperating translating device placeable into an inoperative condition and respective operative conditions for recording and reproducing: the combination of control means for said device operable to place the device into either of its said conditions; restrictive means associated with said control means to render the same ineffective to place said device into recording condition; and means, operated by said control means and effective when the device has been shifted from reproducing condition into inoperative condition, for rendering said restrictive means inoperative.

7. The subject matter as claimed in claim 6, further including means, operated by said control means as an incident to the initial placing of said device into recording condition following a conditioning of the device for reproducing, for restoring said restrictive means to operative condition.

8. In a phonograph comprising a record-cooperating translating device placeable into an inoperative condition and respective operative conditions for recording and reproducing: the combination of control means for said device operable to shift said device between inoperative condition and said operative conditions selectively; means restricting said control means to render the same ineffective to place said device into a predetermined one of its said operative conditions; and means relieving said control means from the influence of said restricting means upon a placing of said device into the other of said operative conditions.

9. In a phonograph comprising a support onto and from which a record is mounted and removed, and a record-cooperating translating device having an inoperative condition and respective operative conditions for recording and reproducing: the combination of control means for said device operable to place the device into its said respective conditions; means operable to obstruct the path described by the record in its movement onto and off of said support; means rendering said obstructing means effective upon the placing of said device into its respective operative conditions; and means operatively associated with said obstructing means and restricting said control means to render the latter ineffective to shift said device back and forth between recording and inoperative conditions twice in succession.

10. In a phonograph comprising a support onto and from which a record is mounted and removed, and a record-cooperating translating device having an inoperative condition and respective operative conditions for recording and reproducing: the combination of control means for said device selectively operable to shift said device between inoperative condition and either of said operative conditions; restrictive means operatively associated with said control means for rendering the same ineffective to shift said device twice in succession back and forth between inoperative condition and a predetermined one of said operative conditions; and means secured to said restrictive means and effective when said device is in each of its operative conditions, for obstructing the path described by the record in its movement onto and off of said support.

11. In a phonograph comprising a mandrel rotatably supported at one end and free at the other to receive a record, and a record-cooperating translating device having an inoperative condition and respective operative conditions for recording and reproducing: the combination of control means for placing said device into its respective conditions; means restricting said control means, when the same has been manipulated to shift said device out of recording condition into inoperative condition, for rendering the control means ineffective to shift the device back into recording condition until the device has been next shifted into reproducing condition; and means secured to said restricting means and moved, upon a shifting of said device into operative condition, to obstruct the path described by the record in the movement of the same onto and off of said mandrel.

12. In a phonograph comprising a support onto and from which a record is mounted and removed, and a record-cooperating translating device having an inoperative condition and respective operative conditions for recording and reproducing: the combination of control means for placing said device into its respective conditions; restrictive means operatively associated with said control means and rendering the same ineffective to shift said device back and forth between inoperative condition and a predetermined one of said operative conditions twice in succession; and means causing said restrictive means to be placed into inoperative condition upon the removal of a record from said support.

13. In a phonograph comprising a support onto and from which a record is mounted and removed, and a record-cooperating translating device having an inoperative condition and respective operative conditions for recording and reproducing: the combination of control means for placing said device into its respective conditions; restrictive means operatively associated with said control means and rendering the control means effective to place said device into a predetermined one of said operative conditions only as an incident following next after a restoration of the device to inoperative condition from the other of said operative conditions; and means influencing said restrictive means and operated in response to each change of record on said support to render the restrictive means inoperative.

14. In a phonograph comprising a support onto and from which a record is mounted and re-

moved, and a record cooperating translating device having an inoperative condition and respective operative conditions for recording and reproducing: the combination of control means for placing said device into its respective conditions; means restricting said device to render the same placeable into a predetermined one of its operative conditions by said control means only as an incident following next after a shifting of the device to inoperative condition from the other of its operative conditions; a record ejector; and means, actuated by said ejector in the removal of a record from said support, for placing said restricting means into inoperative condition.

15. In a phonograph comprising a record-cooperating translating device having an inoperative condition and respective operative conditions for recording and reproducing: the combination of control means for placing said device into its respective conditions; restrictive means associated with said control means and enforcing the placing of said device into one of its operative conditions prior to each placing of the device into the other of its operative conditions; a record index slip and a holder therefor; and means, disposed in the vicinity of said holder so that it is adapted for operation concurrently with the removal of the slip from the holder and by a single manipulation of the hand, for placing said restrictive means into inoperative condition.

16. In a phonograph comprising a record-cooperating translating device having an inoperative condition and respective operative conditions for recording and reproducing: the combination of control means for placing said device into its respective conditions; restrictive means associated with said control means and rendering the same ineffective to shift said device back and forth between inoperative condition and recording condition twice in succession; an index slip and a holder therefor; a movable member arranged in relation to said holder for movement incidental to a change of slip in the holder; and means, operatively connecting said restrictive means with said member and actuated in response to a movement of the latter, for placing the restrictive means into inoperative condition.

17. In a phonograph comprising a record-cooperating translating device having an inoperative condition and respective operative conditions for recording and reproducing: the combination of control means for placing said device into its respective conditions; restrictive means, associated with said control means and rendering the same ineffective to shift said device back and forth between inoperative condition and recording condition twice in succession; an index slip and a holder therefor; a member movable into and out of a position wherein the member obstructs the normal path defined by the slip in its movement from said holder; and means, operatively connecting said obstructing member with said control means and causing said obstructing member to be locked in obstructing position while said translating device is in recording condition.

18. In a phonograph comprising a support onto and from which a record is mounted and removed, and a record cooperating translating device having an inoperative condition and respective operative conditions for recording and reproducing: the combination of control means for placing said device into its respective conditions; means restricting said device to render the same placeable into a predetermined one of its operative conditions by said control means only as an incident following next after a restoration of the device to inoperative condition from the other of its operative conditions; a record ejector; and means, operatively associating said ejector with said restrictive means and effective when said support is free of a mounted record, to maintain said restrictive means in inoperative condition.

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