Sept. 26, 1939. J. R. MITCHELL 2,174,273

AUTOMATIC PHONOGRAPH

Filed Aug. 12, 1937 5 Sheets-Sheet 1

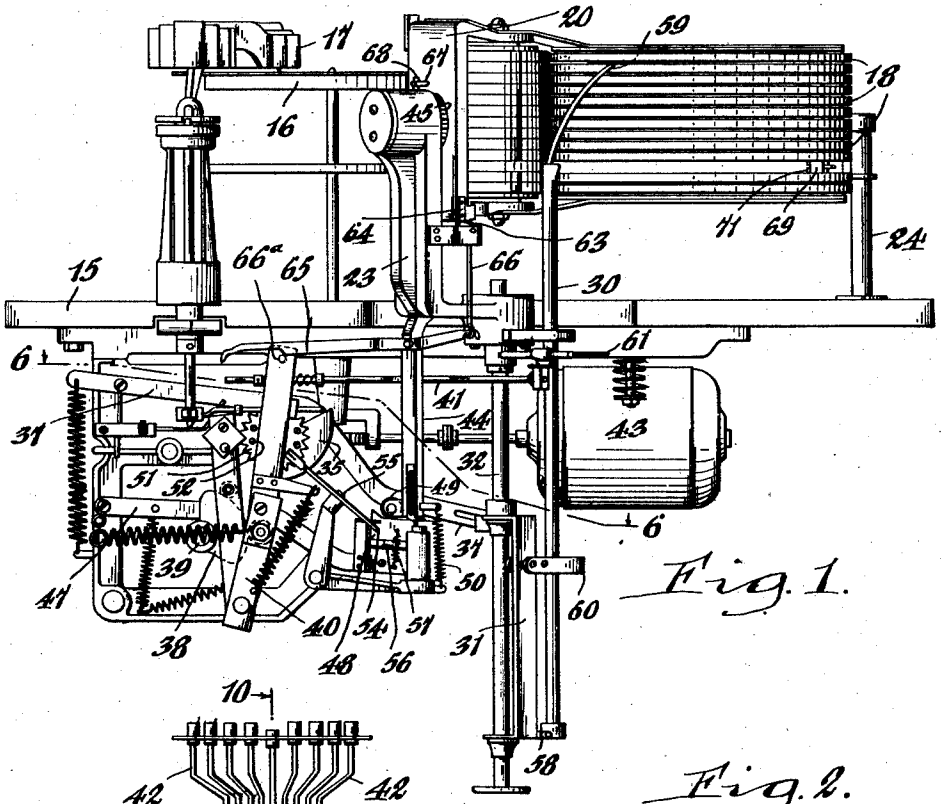
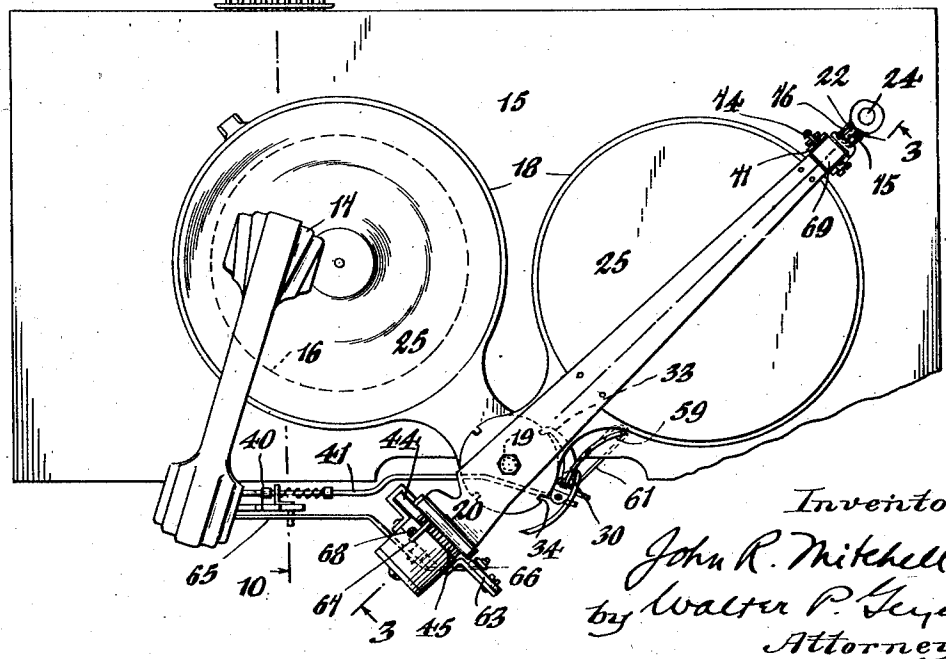


Fig. 1.

Fig. 2.



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AUTOMATIC PHONOGRAPH

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Fig. 3.

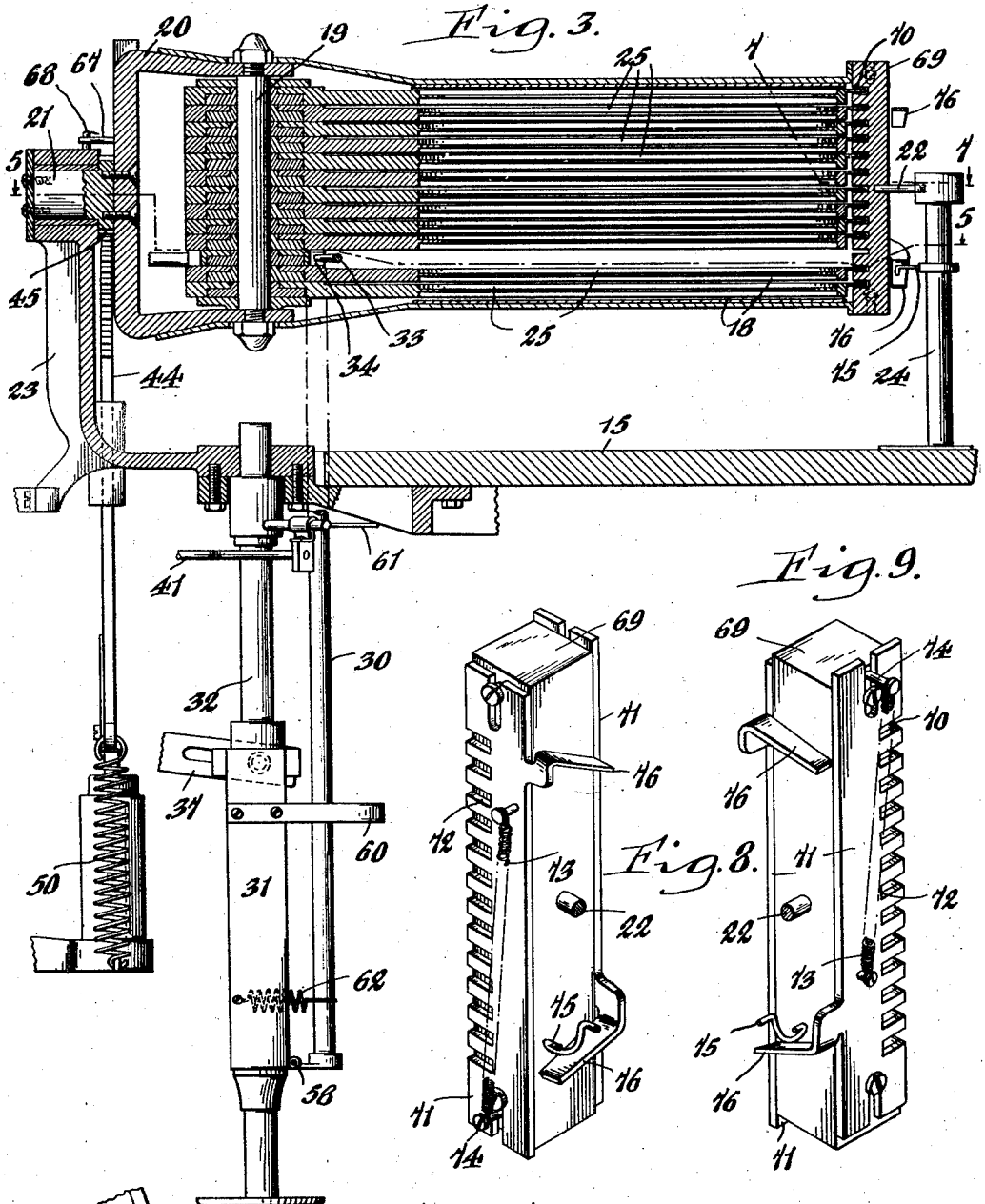
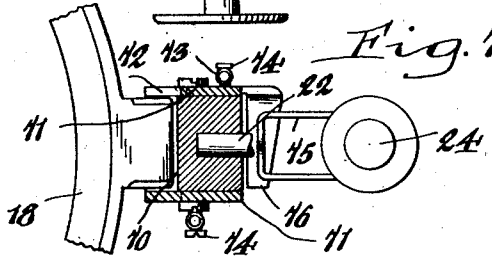


Fig. 9.

Fig. 8.

Fig. 7.



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AUTOMATIC PHONOGRAPH

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Fig. 4.

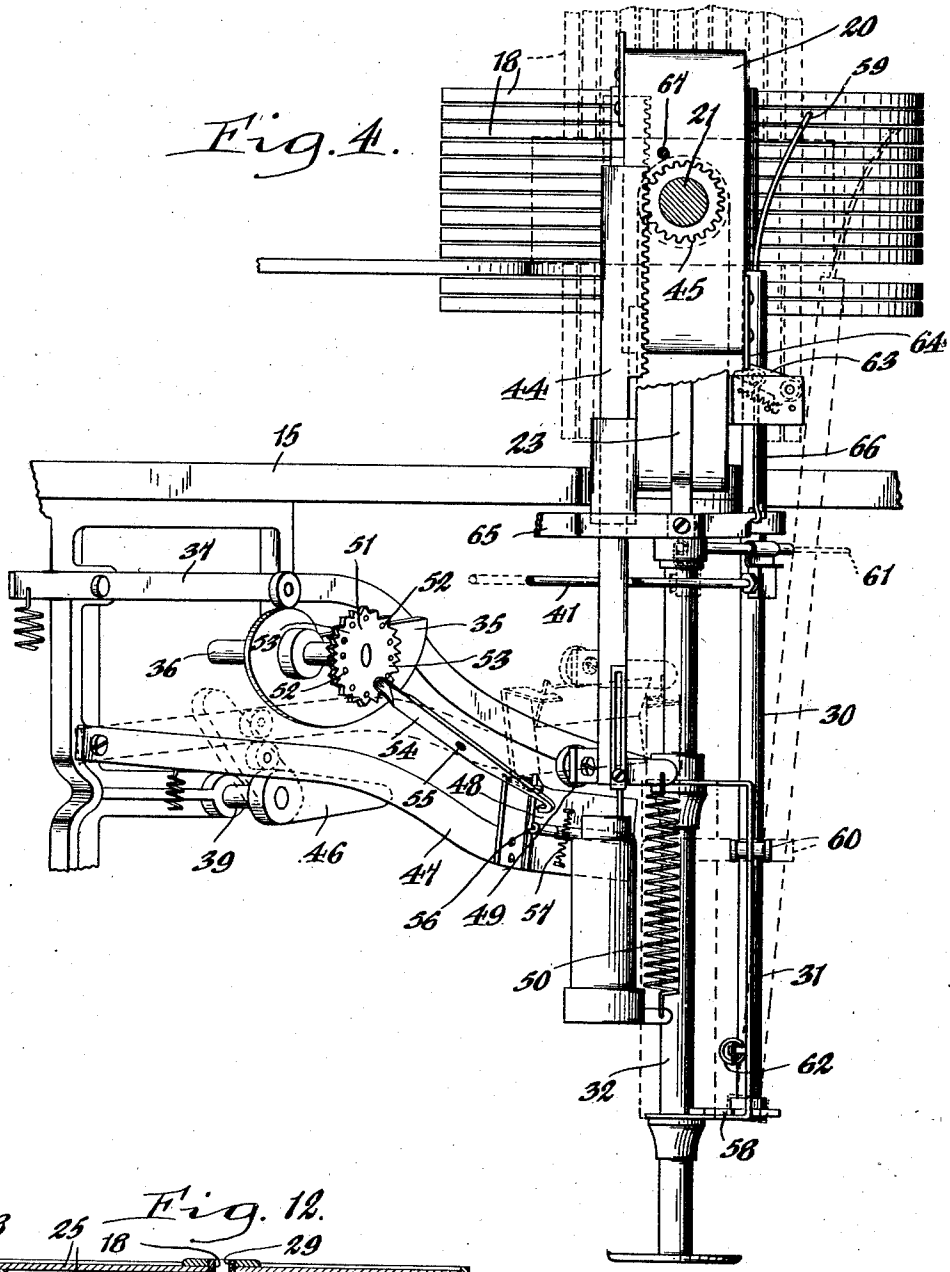
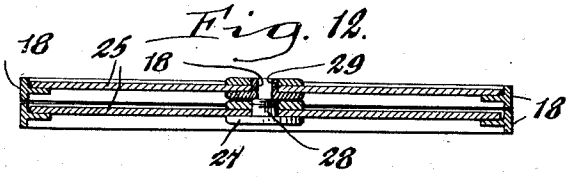


Fig. 12.



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AUTOMATIC PHONOGRAPH

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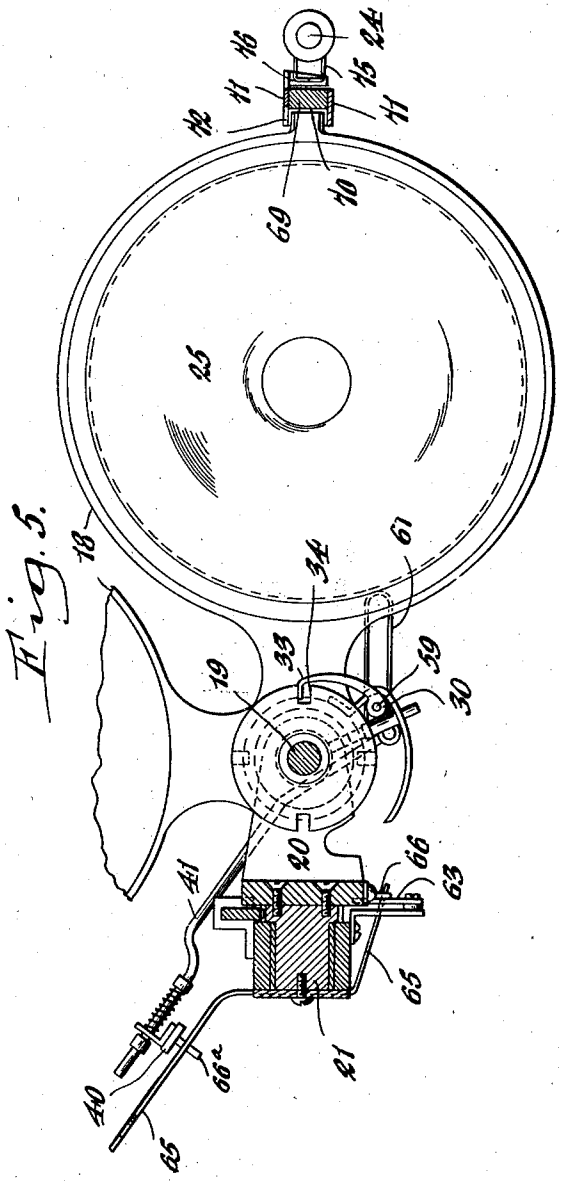

Fig. 5.

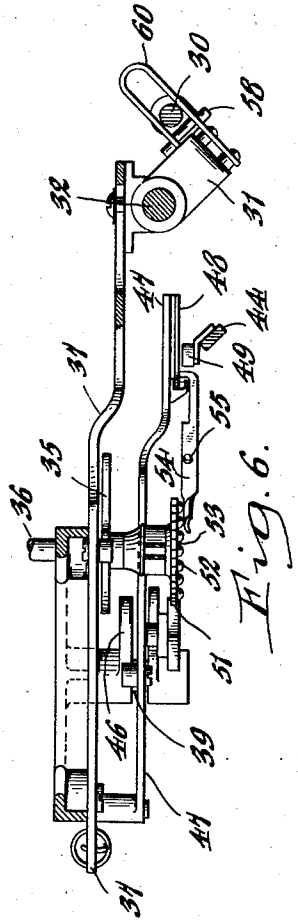

Fig. 6.

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Fig. 10.

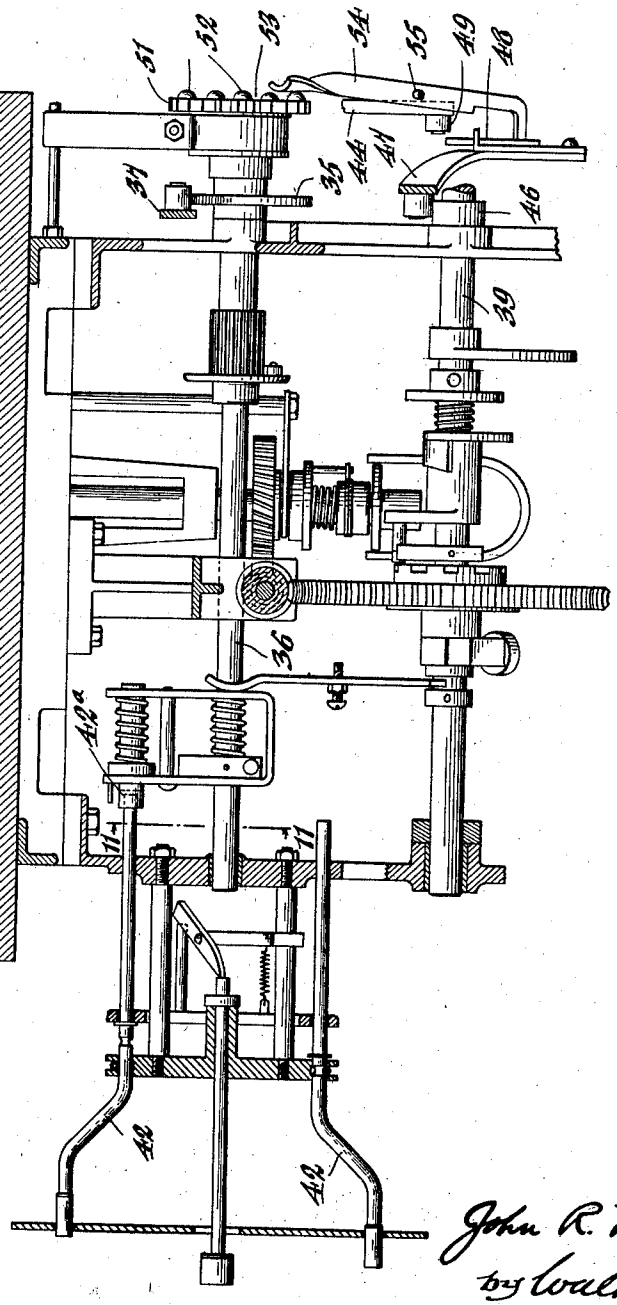
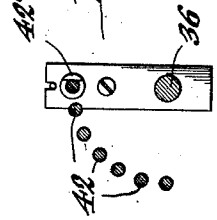


Fig. 11.



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Patented Sept. 26, 1939

2,174,273

UNITED STATES PATENT OFFICE

2,174,273

AUTOMATIC PHONOGRAPH

John R. Mitchell, Dallas, Tex., assignor to The Rudolph Wurlitzer Company, a corporation of Ohio

Application August 12, 1937, Serial No. 158,765

23 Claims. (Cl. 274—10)

This invention relates to certain new and useful improvements in automatic phonographs.

It has for one of its chief objects to provide a multi-selective phonograph which is so designed and constructed as to automatically play both sides of the records, that is, play the records pre-selected, whether or not the program-selections are on one side or the other of the records.

Another object of the invention is to provide a phonograph of this character having means for supporting a plurality of records in such a manner that they can be selectively projected to and from a record-play position and further, that they can be presented to play either one side or the other of the record, in accordance with the selections made.

A further object is to provide a phonograph having a simple and compact record holder or magazine together with positive and effective means for bodily shifting or tilting such magazine to present one side or the other of a given record selected for play.

A still further object is the provision of an automatic multi-selective phonograph adapted to play both sides of the records and including a tiltable record-carrier stack or magazine designed to project or swing the carriers to and from a record-play position, in combination with means for releasably latching the carriers against movement or displacement out of the stack during the bodily-tilting movement of the stack or magazine to pre-set the mechanism to play one side or another of the records in accordance with the selections made.

Other features of the invention reside in the construction and arrangement of parts hereinafter described and particularly pointed out in the appended claims.

In the accompanying drawings:

Figure 1 is a rear elevational view of a phonograph embodying my invention. Figure 2 is a top plan view thereof. Figure 3 is an enlarged transverse vertical section taken on line 3—3, Figure 2. Figure 4 is an enlarged rear sectional elevation of my phonograph. Figure 5 is a horizontal section taken substantially in the plane of line 5—5, Figure 3. Figure 6 is an enlarged horizontal section taken in the plane of line 6—6, Figure 1. Figure 7 is an enlarged fragmentary horizontal section taken on line 7—7, Figure 3. Figures 8 and 9 are detached perspective views, looking from opposite sides, showing the mechanism employed for releasably latching the record carriers of the stack in position against displacement. Figure 10 is an enlarged cross section taken substantially in the plane of line 10—10, Figure 2, showing the selector means and associated parts. Figure 11 is a fragmentary cross section taken on line 11—11, Figure 10. Figure 12 is a fragmentary cross section through adjoining record-carriers and showing abutment plates on the records.

Similar characters of reference indicate corresponding parts throughout the several views.

In its general organization, this automatic phonograph which is primarily designed to selectively play both sides of disk-records, comprises the usual turntable and reproducing unit, an oscillatory or swiveling record-carrier frame or reversible magazine disposed at one side of the turntable and having a stack or plurality of superposed record-carriers therein for individual projection therefrom into and out of a position over the turntable for effecting the playing of the records, means for simultaneously selecting in advance one or more record or program selections desired for play, means governed by said selecting means for selectively controlling the reversing movement of the record-carrier frame and the projection of the carriers therefrom in accordance with the pre-selections made, means for elevating the turntable to lift a selected record from its carrier into operative engagement with the reproducer, and power driven means for actuating the foregoing mechanisms in their proper cycle of operations to automatically play the records selected, whether the record-selections chosen be on one side or the other of the record disks.

This invention is an improvement on the multi-selective phonograph disclosed in the Wilcox Patent No. 2,002,236, dated May 21, 1935, wherein a patron may preselect in advance a plurality of records desired to be played, from the program of records to be played as borne by one side of the records, and thereafter, upon the deposit of the proper number of coins, the phonograph will operate automatically to play the desired records which were preselected. Specifically, the phonograph disclosed in the Wilcox patent includes a plurality of record carriers disposed in stack-like fashion at one side of a vertically-reciprocable turntable and adapted, individually and selectively, to swing laterally from a normal inoperative position at one side of the turntable to an operative position over and in the axial path of the turntable to enable the latter, when elevated, to pick the selected record from its carrier and

bring it into operative playing engagement with the needle of the reproducer. Swingable about the axis of the carriers is a selector member vertically movable adjacent the carriers for adjustment to engage one or another of them. At the front side of the machine are a plurality of individually depressible selector buttons, corresponding in number to the records, which govern or control the elevation to which the selector member is moved. When the preselected elevation is reached, in each instance, the selector member is swung about its pivot to engage and swing the corresponding selected record-carrier to a position over the turntable, whereupon the turntable is raised to pick the selected record from its carrier and present it to playing position in contact with the reproducer-needle.

In the present invention there is embodied a bodily-shiftable stack of records so as to selectively play the records on one side or the other, the stack remaining in a given position or being automatically reversed as determined by whether the selections preselected for play are on one side or the other of the record-disks.

By way of example, my invention has been shown in connection with a phonograph of the kind above referred to, 15 indicating the platform or supporting frame of the phonograph chassis, 16 the vertically reciprocable turntable, 17 the reproducer or tone arm carrying the usual record-engaging needle, and 18 a plurality of pivoted record-carriers normally disposed in stack-like fashion at one side of the turntable and adapted to be selectively swung horizontally to a position over the turntable to play the record selected and to be returned to the stack after playing. These carriers are pivoted in superposed relation on an upright post 19 disposed at one end of an oscillatory or reversible record-carrier frame 20 supported or swiveled at its diametrically oppqsite sides on horizontal trunnions 21, 22 in corresponding brackets 23, 24, respectively. The carriers are preferably ring-shaped, as shown, and the records 25 are supported at their marginal edges in corresponding upper or lower seats 26 formed therein, the arrangement of the carriers being such that the lower seat of one carrier is alined with and in opposing or communicating relation with the upper seat of a juxtaposed carrier, whereby, upon reversal of the carrier-frame from one position to another, the records resting in the upper seats of the carriers are reversed, side for side, and deposited by gravity into the companion, or what were, the lower seats. In view of the fact that the records are displaced in this manner from one carrier 18 to another upon the reversal of the stack, there is one more carrier than there are record disks.

Each record, if desired, may have abutment or bearing plates 27 applied to its opposite faces centrally thereof, so that in the stack formation of the records, these plates abut one against the other, in the manner shown in Figure 12, to thereby support the records at their center and eliminate distortion or warpage thereof. These plates may be detachably connected to the records in any suitable manner, as by a threaded connection wherein one of the plates is provided with a threaded stem 28 engaging the record-hole and the companion plate has a threaded opening 29 to receive said stem to thereby effectually clamp both plates to the opposite faces of the record.

The selective movement of the carriers to and from a position over the turntable 16 is effected by a vertically and horizontally movable selector bar 30 mounted on a yoke 31 free to slide axially and turn about a depending guide post 32 and provided at its upper end with a coupling element 33 adapted to engage a notch 34 or the like in the hubs of the respective carriers, whereby to selectively swing them into and out of the carrier-frame 20. The vertical adjustment of the selector bar to an elevation in coupling engagement with the carrier 18 containing a given record desired for play is selectively controlled by a cam 35 mounted on a selector shaft 36 and a lever 37 actuated by the cam and connected to the selector bar yoke 31. The swinging of this selector bar to in turn move the carriers to a position over the turntable is effected by a cam 38 mounted on a cam shaft 39 and a lever 40 in bearing contact with the cam and connected by a link 41 with the selector bar, all in a manner similar to that disclosed in the Wilcox patent. Selector rods or buttons 42, corresponding in number to the record-selections, that is, two for each record, are provided for selecting the records desired for play and these buttons, in conjunction with a stop arm 42^a on the selector shaft 36, govern the rotation of the latter to in turn govern the vertical adjustment of the selector bar 30. Motion is transmitted to the shafts 36, 39 and the turntable by an electric motor 43, all as fully set forth in said Wilcox patent.

In the present invention the selector buttons 42 are arranged in an annular row with, say, the odd-numbered buttons representing the selections on one side of the records and the even-numbered buttons representing the selections on the opposite sides of the records, so that when certain selections have been chosen by the push buttons, an actuating means will be rendered operative or inoperative to effect the reversal or non-reversal of the carrier-frame 20. While any suitable means may be employed for reversing the carrier-frame, I provide a vertically-reciprocating rack bar 44 suitably guided on the chassis and meshing with a gear 45 applied to the inner trunnion 21 of such frame. Motion may be selectively transmitted to this rack bar in one direction, say, upwardly, by a cam 46 mounted on the cam shaft 39 and a cooperating lever 47 having a laterally displaceable coupling or clutching head 48 at its free end for engagement with a roller 49 or the like applied to the lower end of the rack-bar. Restoration of the carrier-frame to its initial position may be effected by a spring 50 applied to the lower end of the rack bar. The displacement of the coupling head 48 on the rack bar actuating lever is selectively governed from the push buttons and cooperating selector shaft 36, the latter having a disk or wheel 51 thereon having on its face an annular row of protuberances 52 and intervening low spots or depressions 53, and corresponding, respectively, to the odd-numbered and even-numbered push buttons. These protuberances and depressions act to control a shiftable lever 54 pivoted intermediate its ends at 55 and having one end in operative engagement with the face of the wheel 51 and its other end in abutting engagement with the coupling head 48 which is pivoted at 56 to the lever 47 to rock transversely thereof into or out of operative engagement with the rack bar roller 49. When this lever 54, by reason of a preselected position of the wheel 51 determined by a selected push button, registers with a protuberance on that wheel, it acts to displace and hold the coupling head 48 out of the plane of the rack-bar roller 49, so that

when the lever 47 is actuated, it will merely swing idly past the roller without transmitting motion to the rack bar and hence no reversal of the carrier-frame will take place. However, when such lever 54 registers with a depression on the wheel, the coupling head will be shifted into the plane of the roller 49 and motion transmitted to the rack bar to in turn rock the carrier-frame and reverse its position to expose the selection desired on a given record face up preparatory to swinging that carrier with its record to a position over the turntable. A spring 57 connected to the displaceable coupling head tends constantly to urge the latter into the plane of the rack bar roller.

During the oscillating movement of the carrier frame 20, the selector bar 30 is free to be displaced thereby into and out of its normal upright or operating position and for this purpose is pivoted at its lower end at 58 to the yoke 31 while its upper end has an extension 59 which is adapted to be contacted by the carrier frame during its reverse movements and accordingly rock the selector bar to a position where it will not interfere with the oscillating strokes of such frame. In these movements the selector bar is guided in suitable guide loops or ways 60, 61 and a spring 62 applied thereto constantly urges it to seek a normal operative position for coupling engagement with the carriers 18.

When the carrier-frame 20 is swiveled from its normal position for playing, say, the top sides of the records, to its reversed position for playing the bottom or opposite sides of the records, it swings in a clockwise direction viewing Figure 4, due to the actuating upstroke of the rack bar 44, and is releasably latched in such reversed position by a spring-pressed latch dog 63 pivoted to the bracket 23 and against which a lug 64 borne by the adjoining end of the carrier-frame is adapted to abut, the return spring 50 connected to the rack bar tending to urge said frame against the latch dog. The release of the latch dog 63 from engagement with the frame-lug 64 is automatically effected upon the return of a selected carrier 18 to the stack frame by means of an actuating lever 65 connected at one end by a link 66 with said dog and being adapted for tripping engagement at its opposite end with a pin 66a applied to the lever 40 which effects the swinging of the selector bar 30 to in turn swing the carriers into and out of the swiveling stack-frame. This releasing action takes place at the end of the return stroke of the lever 40 in returning the carrier of the played record back to the stack, so the moment the dog 63 is released, the carrier-frame oscillates in a counter-clockwise direction under the tension of the spring 50 to its normal position and is arrested and held in that position by companion stops 67, 68 applied to the frame 20 and bracket 23, respectively.

The free end of the carrier-frame 20 diametrically opposite the carrier-pivot 19 includes a carrier-sustaining member or block 69 having transverse ways or notches 70 therein with which the adjoining edges of the carriers engage when in position within the frame, as shown in Figures 3 and 5. During the swiveling movements of the frame, it is necessary to hold the carriers 18 against swinging outwardly therefrom, and for this purpose I provide releasable latch plates 71 having escapement notches 72 to opposite sides of the block 69, said notches registering with the block-notches 70 in the normal and reversed positions of the carrier-frame to permit the selected withdrawal of the carriers, and the latch-plate being shiftable to positions out of register with those block-notches during the swiveling of the frame. A spring 73 is associated with each latch-plate for urging it in a direction against a stop 74 wherein the escapement notches 72 are out of register with those of the block 69. Movement of each latch-plate against the resistance of its spring to set it in a released position is effected by a trip element 75 applied to the trunnion bracket 24 and with which an inclined finger 76 on the latch-plate is adapted to engage at the end of the swiveling movement of the carrier frame and during the selecting position thereof. One of the latch-plates functions when the frame is swung in a clockwise direction to latch the record-carriers against displacement and the companion latch plate functions when the frame is swung in a counter-clockwise direction.

I claim as my invention:

1. In an automatic phonograph, a turntable, a stack of records disposed at one side of the turntable and including individual, horizontally-swinging record carriers mounted for selective movement to and from a position over the turntable, a reversibly displaceable carriage constituting a common supporting frame for the record carriers, and means for pivotally supporting said carriage for rotating movement about a horizontal axis to assume either a normal or reversed position for exposing the records borne by the carriers to like positions for playing either one side or the other of the records.

2. In an automatic phonograph, a turntable, a stack of records disposed at one side of the turntable and including individual, horizontally-swinging record carriers mounted for selective movement to and from a position over the turntable, a reversibly displaceable carriage constituting a common supporting frame for the record carriers, and means for pivotally supporting said carriage for rotating movement about a horizontal axis to assume either a normal or reversed position for exposing the records borne by the carriers to like positions for playing either one side or the other of the records, and means for actuating said carriage to position it in one or the other of its record-play presenting positions.

3. In an automatic phonograph, a reproducing means, a turntable vertically movable toward and from said reproducing means, a displaceable record-carrier supporting frame pivotally disposed at one side of the path of and for rotative movement about an axis at substantially right angles to travel of the turntable to assume a normal position and an upside-down position, individual record carriers movably supported in said frame for selective movement to and from an operative position relative to the turntable, and means for reversibly displacing said frame to one or the other of its two positions to expose the records borne by the carriers to corresponding positions.

4. In an automatic phonograph, a plurality of horizontally-disposed record-carriers individually mounted in stack-like fashion for selective movement to and from record-playing position, a pivotally displaceable supporting frame constituting a common support for said carriers adapted to assume a position to expose the carriers in a position for playing one side of the records and a reversed position for exposing the carriers in a position for playing the opposite side of the records, means for selectively moving said carriers relative to the frame to and from record-

playing position, and means operatively connected to said frame for pivotally displacing it from one of the aforesaid positions to the other to expose for play the side of a given record desired.

5. In an automatic phonograph, a plurality of horizontally-disposed record-carriers individually mounted in stack-like fashion for selective movement to and from record-playing position, a pivotally displaceable supporting frame for said carriers adapted to assume a position to expose the carriers collectively in a position for playing one side of the records and a reversed position to expose the carriers collectively in a position for playing the opposite side of the records, means for selectively moving said carriers relative to the frame to and from record-playing position, means operatively connected to said frame for pivotally displacing it from one of the aforesaid positions to the other to expose for play the side of a given record desired, and means for selectively controlling in predetermined sequence the actuation of said frame-displacing means and said record-carrier moving means.

6. In an automatic phonograph, a plurality of record-carriers individually mounted for selective movement to and from record-playing position, a displaceable supporting frame for said carriers adapted to assume a position for playing one side of the records and a reversed position for playing the opposite side of the records, said carriers being disposed in alined, contiguous relation and each having opposing record-engaging seats therein whereby a record is supported in one of the seats in one position of the displaceable frame and in the other of such seats in the reversed position of said frame, means for selectively moving said carriers relative to the frame to and from record-playing position, and means for displacing said frame from one of the aforesaid positions to the other to expose for play the side of a given record desired.

7. In a record changer for phonographs, a displaceable frame adapted to support a stack of records horizontally and with each record having playing grooves on both sides thereof, said frame being adapted to assume a position for exposing one side of the records and a reversed, upside-down position for exposing the opposite side of the records, and a plurality of superposed record carriers mounted on said displaceable frame for movement relative thereto into and out of a record-playing position, there being one more carrier than there are records in the stack and each of said carriers having opposing record-engaging seats therein in juxtaposed communicating relation with the companion seats of adjoining carriers, whereby upon the displacement of the stack-frame from one of the aforesaid positions to the other the records are reversed, side for side, and transferred by gravity from the seat of one carrier into the seat of an adjoining carrier.

8. In a record changer for phonographs, an oscillatory frame adapted to support a plurality of records in superposed relation and to assume a given position when playing the records on one side and a reversed, upside-down position when playing the records on the opposite side, and individually movable, juxtaposed record-engaging members supported in stack-like fashion in said frame for selective projection therefrom to effect the playing of the records, the records being disposed between adjoining pairs of record-engaging members for seating engagement with one of such members of a pair in one position of the frame and with the other of such members in the reversed position of said frame.

9. In a record changer for phonographs, a vertical oscillatory frame adapted to support a plurality of records in superposed horizontal relation and to assume a given position for playing the records on one side and a reversed position for playing the records on the opposite side, individually movable juxtaposed record-engaging members supported in horizontal stack-like fashion in said frame for selective projection therefrom to record-playing position, and releasable latch means applied to said frame for movement therewith and engageable with said record-engaging members for holding them against displacement from the frame during its oscillating movements.

10. In a record changer for phonographs, a vertical oscillatory frame adapted to support a plurality of records in superposed horizontal relation and to assume a given position for playing the records on one side and a reversed position for playing the records on the opposite side, individually movable juxtaposed record-engaging members supported in horizontal stack-like fashion in said frame for selective projection therefrom to record-playing position, releasable latch means applied to said frame for movement therewith and engageable with said record-engaging members for holding them against displacement from the frame during its oscillating movements, and trip elements disposed in operative relation with the latch means for automatically releasing said latch means from engagement with the record-engaging members when the frame reaches one or the other of its respective positions, whereby said members are free to be selectively projected from said frame to record-playing position.

11. In a record changer for phonographs, a vertical oscillatory record-carrier frame adapted to assume a position for playing one side of the records and a reversed position for playing the opposite side of the records, record carriers pivoted to said frame for horizontal movement, means for selectively projecting the record-carriers from said frame when in either of the aforesaid positions for play, trunnion-like members at opposite sides of the frame and about which it oscillates, and rack and pinion means for oscillating said frame to its respective positions.

12. In a record changer for phonographs, an oscillatory record-carrier frame adapted to assume a horizontal position for playing one side of the records and a reversed horizontal position for playing the opposite side of the records, record carriers pivotally mounted at one end in said frame to selectively swing laterally thereof to and from a position over the phonograph-turntable, that end of the oscillating frame opposite the pivoted ends of the carriers including a part having ways therein for supporting the free ends of the carriers in one or the other of the aforesaid positions of said frame, shiftable latch-plates applied to opposite sides of said frame-part and having escapement notches therein adapted to register, in one position of the plates, with the ways in such frame-part to permit the selective swinging of the record carriers from the frame in one or the other of its aforesaid positions, said plate-notches, in the other position of the plates, assuming positions out of register with the ways in said frame-part to retain the carriers against pivotal displacement from the frame during its oscillating movements, and means in the operative path of and for controlling the shifting of said

latch plates at predetermined times in the oscillating movement of the frame to and from their latched positions.

13. In a record changer for phonographs, a vertical oscillatory record-carrier frame adapted to assume a horizontal position for playing one side of the records and a reversed horizontal position for playing the opposite side of the records, record carriers pivotally mounted at one end in said frame to selectively swing laterally thereof to and from a position over the phonograph-turntable, that end of the oscillating frame opposite the pivoted ends of the carriers including a part having ways therein for supporting the free ends of the carriers in one or the other of the aforesaid positions of said frame, shiftable latch-plates applied to opposite sides of said frame-part and having escapement notches therein adapted to register, in one position of the plates, with the ways in such frame-part to permit the selective swinging of the record carriers from the frame in one or the other of its aforesaid positions, said plate-notches, in the other position of the plates, assuming positions out of register with the ways in said frame-part to retain the carriers against pivotal displacement from the frame during its oscillating movements, means for constantly urging said latch-plates to positions wherein their escapement notches are out of register with the ways of said frame-part, and trip means respectively disposed in the moving path of and engageable with said latch-plates for shifting and retaining them in position to permit the escapement and selective swinging of the record-carriers to positions for play.

14. In a record changer for phonographs, an oscillatory record-carrier frame adapted to assume a horizontal position for playing one side of the records and a reversed horizontal position for playing the opposite side of the records, means for oscillating said frame to one or the other of its aforesaid positions, record-supporting means movable relatively to and constituting a part of the frame for selectively projecting the records from said frame when in either of said positions, individually movable selector means corresponding in number to the records whereby a user may pre-select a record or records desired for play, and means governed by said selector means and operatively connected to the frame-oscillating means and the record-projecting means for initiating the actuation of said frame-oscillating means and said record-projecting means, respectively.

15. In a record changer for phonographs, an oscillatory record-carrier frame adapted to assume a horizontal position for playing one side of the records and a reversed horizontal position for playing the opposite side of the records, means for oscillating said frame to one or the other of its aforesaid positions, record-supporting means movable relatively to and constituting a part of the frame for selectively projecting the records from said frame when in either of said positions, individually movable selector means corresponding in number to the records whereby a user may pre-select a record or records desired for play, and means governed by said selector means and operatively connected to the frame-oscillating means and the record-projecting means for initiating the actuation of said frame-oscillating means and said record-projecting means, said initiating means including an adjustable coupling member for rendering said frame-oscillating means operative or inoperative to actuate the oscillatory frame depending upon the record or records pre-selected.

16. In a record changer for phonographs, an oscillatory record-carrier frame adapted to assume a horizontal position for playing one side of the records and a reversed horizontal position for playing the opposite side of the records, means for oscillating said frame to one or the other of its aforesaid positions, record-supporting means movable relatively to and constituting a part of the frame for selectively projecting the records from said frame when in either of said positions, said record-projecting means including an actuating shaft, individually movable means corresponding in number to the records whereby a user may pre-select a record or records desired for play, said shaft being governed in its movement by said pre-selecting means for predetermining the projection of the records for play in accordance with the selection or selections made, a clutching means for rendering said frame-oscillating means operative or inoperative depending upon the record or records pre-selected, and means on the shaft of said record-projecting means and correlated with said pre-selecting means for controlling said clutching means to effect the oscillation of said carrier-frame as determined by the records pre-selected.

17. In an automatic phonograph, a reversible record-carrier frame adapted to assume a horizontal position for playing one side of the records and a reversed horizontal position for playing the opposite side of the records, record-carriers mounted on said frame for selective movement to and from a record-playing position, means for actuating said carriers to a record-playing position and including a rotatable member, selector means corresponding in number to the records for predetermining and governing said rotatable member to correspondingly actuate said record-carriers in accordance with the selections made, means for reversing said carrier-frame, and means interposed between said rotatable member and said reversing means for rendering the latter operative or inoperative to reverse the carrier-frame in accordance with the record selections predetermined by the selector means.

18. In an automatic phonograph, a reversible record-carrier frame adapted to assume a horizontal position for playing one side of the records and a reversed horizontal position for playing the opposite side of the records, record-carriers mounted on said frame for selective movement to and from a record-playing position, laterally shiftable means adjustable to a plurality of positions to engage each of said record-carriers to selectively move them to and from a record-playing position, means for effecting the selection of records to be played, rotatable means operatively associated with and governed by said selection means for controlling the selective position and the lateral movement of said shiftable means, means for reversing said carrier-frame, and a selective control mechanism associated with said reversing means and operatively connected to and governed by said selection means for rendering the reversing means operative or inoperative to reverse the carrier-frame in accordance with the record-selections made.

19. In an automatic phonograph, an oscillatory record-carrier frame adapted to assume a horizontal position for playing one side of the records and a reversed horizontal position for playing the opposite side of the records, means

for pre-selecting the records to be played, record-supporting means movable relatively to and constituting a part of the frame and governed by said pre-selecting means for selectively projecting the records from said frame when in either of the aforesaid positions for play, means for oscillating said frame to one or the other of its selective play positions including a part adjustable to and from an operative position to render said oscillating means operable or inoperable to reverse the position of said frame, and means governed by said pre-selecting means for shifting the adjustable part of said frame-oscillating means to and from an operative position as predetermined by the records selected.

20. In an automatic phonograph, an oscillatory record-carrier frame adapted to assume a horizontal position for playing one side of the records and a reversed horizontal position for playing the opposite side of the records, means for pre-selecting the records to be played, record-supporting means movable relatively to and constituting a part of the frame and governed by said pre-selecting means for selectively projecting the records from said frame when in either of the aforesaid positions for play, means for oscillating said frame to one or the other of its selective play positions including a part adjustable to and from an operative position to render said oscillating means operable or inoperable to reverse the position of said frame, and means governed by said pre-selecting means for shifting the adjustable part of said frame-oscillating means to and from an operative position as predetermined by the records selected, said means consisting of a rotatable member selectively movable to a plurality of positions and governed in such movement by said pre-selecting means, said rotatable member having contact elements thereon for engagement by the adjustable part of said frame-oscillating means for governing its shifting movements.

21. In an automatic phonograph, a plurality of superposed record-carriers disposed in stack-like fashion and adapted to be selectively moved to and from their stack-like position for playing the respective records, said carriers being substantially ring-shaped and having seats thereon for supporting the records thereon at their marginal edges, and hub-like members applied to the central portions of the opposite faces of the records in axial relation to their spindle-receiving openings, whereby in the stack-like arrangement of the carriers the marginal edges of the records are supported in the carrier-seats and the hub members of one record abut the opposing faces of like members of adjoining records to respectively support the records against distortion.

22. In an automatic phonograph, a plurality of record carriers individually mounted for selective movement to and from record-playing position, an oscillatory frame for said carriers adapted to assume a position for playing one side of the records and a reversed position for playing the opposite side of the records, each of said carriers having opposing record-engaging seats therein in juxtaposed communicating relation with the companion seats of adjoining carriers, whereby upon displacement of the oscillatory frame from one of the aforesaid positions to the other the records are reversed, side for side, and transferred by gravity from one carrier onto an adjoining carrier, means for supporting said frame to rock about a substantially horizontal axis, means for oscillating the frame in directions to present the records on one side or the other for play, releasable latch means applied to said frame and engageable with the record-carriers for retaining them in said frame during its oscillating movements, trip elements disposed in operative relation with the latch means for releasing said latch means when the frame reaches one or the other of its record-selecting positions, means selectively engageable with one or another of the carriers for moving them to and from record-playing position, means for simultaneously selecting a plurality of records to be played, adjustable means selectively engageable with the carriers and governed by said selecting means for controlling the selective movements of the carriers, and means operatively connected to the frame-oscillating means and correlated with said selective governed means for initiating the operation of said frame-oscillating means to position said frame for playing the selected side of a given record.

23. In an automatic phonograph, a turntable, a stack of records displosed at one side of the turntable and including individual, pivotally mounted carriers for selective swinging movement to and from a position over the turntable, said carriers being disposed in juxtaposed, alining relation and each having oppositely-facing, record-supporting seats therein, a reversibly displaceable carriage constituting a common supporting frame for the pivoted carriers, and means for pivotally supporting said carriage for rotative movement about an axis at substantially right angles to the turntable to assume either a normal position with the records supported in companion carrier-seats or a reversed position with the records supported in the opposing carrier-seats for exposing the records to selectively play one side or the other thereof.

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