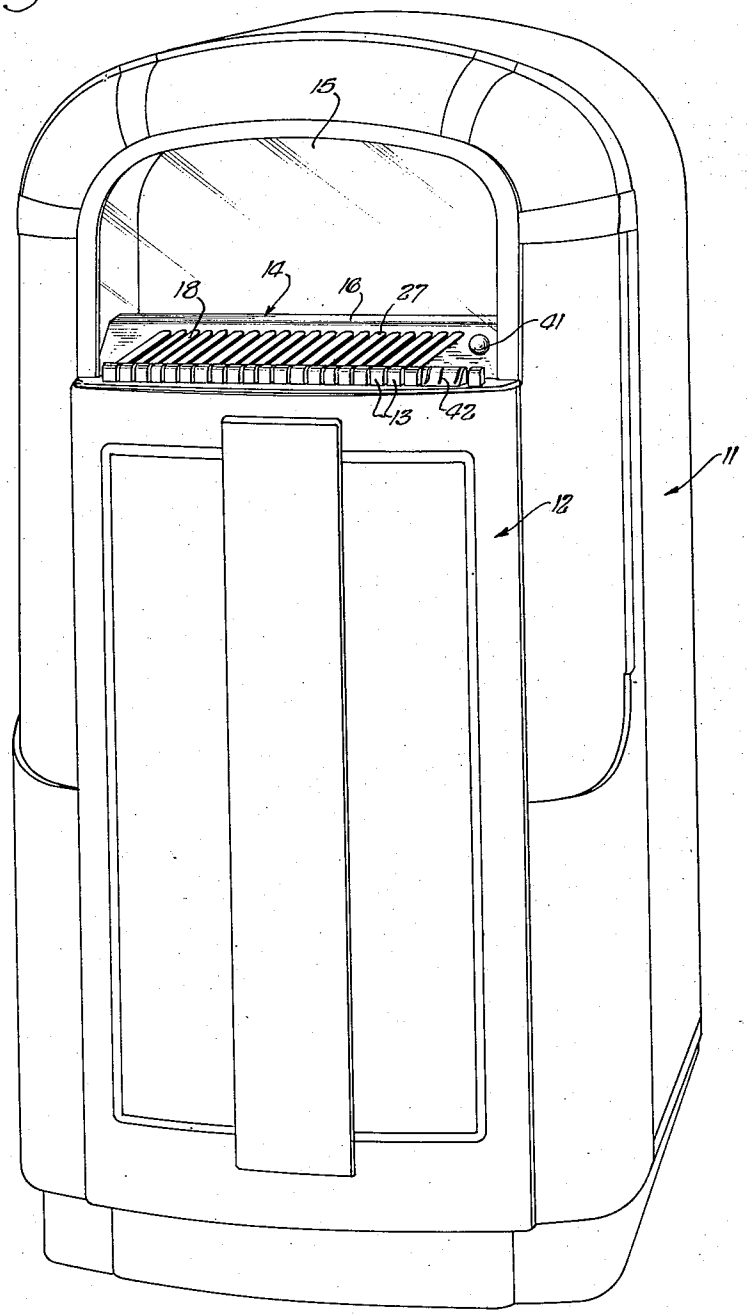
Dec. 25, 1951 D. C. ROCKOLA 2,580,046

INDICATOR

Filed July 5, 1946 2 SHEETS—SHEET 1

Fig. 1



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INDICATOR

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Fig. 2

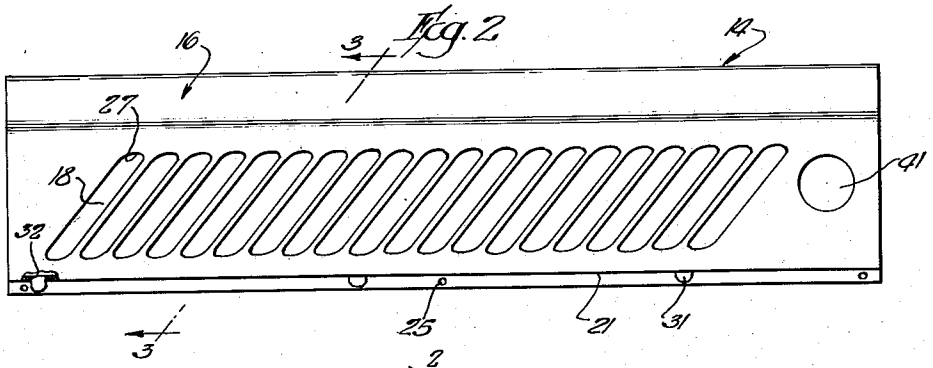


Fig. 3

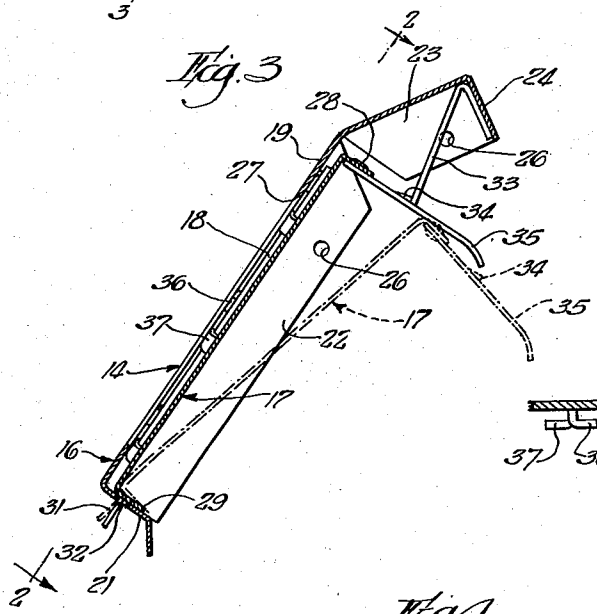


Fig. 5

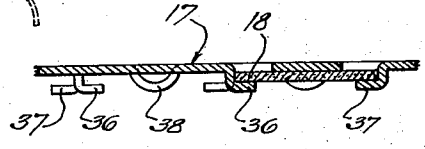
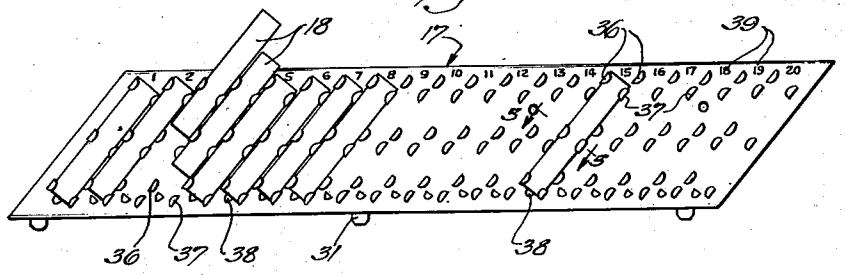


Fig. 4



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UNITED STATES PATENT OFFICE

2,580,046

INDICATOR

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Application July 5, 1946, Serial No. 681,459

2 Claims. (Cl. 116—130)

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This invention relates in general to indicators, and more particularly to an indicating device which is especially well adapted for use in connection with the selector control means of an automatic multi-record phonograph.

A principal object of the invention is the provision of an indicator comprising a plurality of indicia so arranged in relation to each other as to be readily readable individually, and also so arranged as to each visually direct attention to an individually associated manually operable control member of an equal number of such members which together form a selector control unit.

In the preferred embodiment of the invention, this control unit comprises means for selectively controlling the operation of an automatic multi-record phonograph, each member of which unit is operable to control the selection of a particular record to be played, and the individual indices of the indicator unit identify the different records in the machine which may be played.

Another important object of the invention is the provision in such an indicator of novel means for enabling ready removal and replacement of the individual indices, or any or all of them.

A further important object of the invention is to provide an indicator comprising an outer housing or frame member having a plurality of sight apertures, and an inner frame member removably supported thereby which removably retains a plurality of indices in individual alignment with the sight apertures in the outer frame member when mounted thereon and which may be readily removed from the outer frame member to facilitate rapid changing or substitution of any or all of the individual indicia.

Another object of the invention is to so arrange such an indicator in a closure member of a cabinet housing the mechanism controlled by manually operable members mounted in such closure member as to facilitate rapid removal and replacement of the indices of the indicator upon opening of the closure member.

Numerous other objects and advantages of the invention will be apparent as it is better understood from the following description, which, when taken in connection with the accompanying drawings, discloses a preferred embodiment thereof.

In the drawings,

Figure 1 is a perspective view of a multi-record phonograph embodying an indicator incorporating the features of the present invention;

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Fig. 2 is a front elevation of the indicator unit;

Fig. 3 is a vertical sectional view taken substantially on the line 3—3 of Fig. 2;

Fig. 4 is an elevational view of the auxiliary frame member; and

Fig. 5 is an enlarged detail section taken substantially on the line 5—5 of Fig. 4.

Referring more particularly to the drawings, reference numeral 11 indicates in general the cabinet of a multi-record phonograph containing operating mechanism similar to that disclosed in United States Letters Patent No. 2,389,327 issued November 20, 1945. The front portion of the cabinet 11 is provided with a door or closure member 12 hingedly secured thereto on a vertical axis at the left side thereof and adapted to be swung outwardly to give access to the interiorly disposed operating mechanism, which is not disclosed. Mounted on the closure member 12 adjacent the upper end thereof is a row of manually operable control members 13 comprising a control unit for selectively controlling the operation of the mechanism contained within the cabinet 11. Each of these control members or keys 13 controls the selection of a particular record adapted to be played in similar manner to the selector keys 212 of the control unit C of Patent No. 2,389,327 above noted. Since the structural connections between the manually operable control members 13 and the record playing mechanism housed within the cabinet 11, and the specific mode of operation thereof, do not constitute part of the instant invention, reference is made to the cited patent for a complete understanding of the functioning of these parts.

In prior multi-record phonographs, it has been customary to arrange a program holder thereon in somewhat adjacent relationship to the manually operable control unit to advise the person playing the phonograph as to what particular records therein will be played upon operation of a particular selector key. In this connection, such devices as a common practice have numbered the various manually operable control keys, and have provided the program holder with corresponding numbers adjacent each of the indices thereon which individually identify the several records contained in the phonograph.

The present invention provides an indicator unit 14 for accomplishing this function of individually identifying the several records in the phonograph, which at the same time is so disposed and arranged that each of the plurality of indices incorporated in such indicator unit

visually draws the attention of anyone reading the same to the associated control member 13 which, when manually operated, will effect the playing of the particular record identified by the individual index. As shown in Fig. 1, the indicator unit 14 is mounted on the cabinet door or closure member 12 directly behind the row of manually operable control members 13. A glass panel 15 forming a part of the closure member 12 is interposed between the indicator unit 14 and the control members 13.

The indicator unit 14 comprises a main frame 16, an auxiliary frame member 17 and a plurality of indices 18. The main frame 16 is preferably formed as a one piece stamping of a relatively light gauge sheet metal, and includes a front panel 19, a lower flange 21 extending longitudinally thereof, a main side flange 22 at each end thereof, auxiliary upper side flanges 23, and an upper, angularly disposed flange 24. With this arrangement, as will be appreciated from Figs. 2 and 3 of the drawings, this main frame 16 may thus be formed as a one piece stamping. The lower flange 21 is provided with a plurality of apertures 25, and the side flanges 22 and 23 with similar apertures 26, for accommodating suitable screws for securing the main frame 16 to adjacent portions of the closure member 12 of the cabinet.

The front panel 19 of the main frame of the indicator unit is provided with a series of elongated sight apertures 27 therethrough which are disposed individually at an angle to the vertical to facilitate reading therethrough by a person standing in front of the cabinet 11, and the lower ends of which are respectively disposed directly behind the several manually operable control members 13. To further facilitate reading through the apertures 27 and direct visual association between each of said apertures and its associated control key 13, the main frame 16 is mounted within the closure member 12 at the angle best illustrated in Fig. 3 of the drawings.

The auxiliary frame member 17 comprises a one piece stamping having upper and lower longitudinal flanges 28 and 29, respectively, formed thereon. The lower flange 29 is provided with a plurality of tongues 31 struck therefrom in the stamping of the auxiliary frame member which are adapted to extend downwardly and forwardly through suitable apertures 32 (Fig. 3) provided in the lower flange 21 of the main frame 16. When mounted in the indicator unit, the auxiliary frame member 17 is thus properly positioned relative to the apertures 27 in the main frame 16 by means of the tongues 31 and their associated apertures 32, the lower flange 29 of the auxiliary frame member resting on the lower flange 21 of the main frame. The auxiliary frame member 17 is removably retained in this mounted position by manually releasable latching means comprising a pair of angular straps 33 secured to the upper flange 24 of the main frame, the lower ends of which cooperate with upstanding lugs 34 struck from a pair of associated spring members 35 secured at their forward ends in any suitable manner to the upper flange 28 of the auxiliary frame member 17. The spring members 35 also function as manually engageable handle means or holders for removing the auxiliary frame member 17 from the main frame 16. This function is performed in the manner illustrated in Fig. 3 by first depressing the spring members 35 to disengage their lugs 34 from the associated latching members or straps 33, and then tilting the auxiliary frame member downwardly and lifting the same from its broken line position of Fig. 3 to disengage the tongues 31 from the apertures 32.

As illustrated in Figs. 3, 4 and 5, means are provided for removably retaining the plurality of indices 18 on the auxiliary frame member 17 which comprises parallel rows of reversely off-set tabs or lugs 36 and 37 struck upwardly from the main body of the auxiliary frame member, with their upper free ends overlapping the upper surface thereof, and a horizontal row of limiting tabs 38 adjacent the bottom of the auxiliary frame member. Each of the parallel rows of tabs 36, 37 comprises three of each of said tabs facing alternately in opposite directions, so that the three tabs 36 therein cooperate with the three tabs 37 in the next adjacent row to overlie one of the indices 18 to removably retain the latter on the auxiliary frame member. Similarly, the three tabs 37 in each row cooperate with the three tabs 36 in the next adjacent row in the opposite direction. Each of the tabs 38 is struck upwardly from the body of the auxiliary frame member to provide a vertical edge surface disposed normally or at right angles to the direction of the rows of tabs 36, 37 to limit downward movement of the associated index 18. The several rows of tabs 36, 37 are angularly disposed and spaced identically with the apertures 27 in the main frame member 16, so that the indices retained thereby on the auxiliary frame member 17 will be in direct alignment with the apertures 27 when the auxiliary frame member is mounted in the main frame with its tongues 31 extending through the apertures 32. It will be understood that the indices 18 may be made of any suitable material and preferably comprise slips of paper having identifying information typed thereon relating to the different records contained within the phonograph.

For the purpose of properly identifying the position of any particular one of the several indices 18 relative to its associated control member 13 when the auxiliary frame member 17 has been removed from the indicator unit, the auxiliary frame member is provided, as shown in Fig. 4, with a series of numerical indicia 39 inscribed respectively thereon adjacent the several guide-ways formed by the tabs 36, 37.

The main frame 16 of the indicator unit, as shown in Figs. 1 and 2, is provided with a light 41 which forms no part of the present invention, but functions to visually inform or direct a player of the phonograph that a selection has not been made, or to make a selection by operation of one or more of the keys 13, if the operator has deposited a coin or coins in the coin receiving slots 42 without making such selection. Suitable directional information, if desired, may be inscribed upon the outer face of the main frame 16 indicating the proper values of coins to be deposited in the different coin slots 42.

Also, if desired, numerical indicia corresponding to numerals 39 on the auxiliary frame member 17 may be inscribed upon the outer face of the main frame 16 adjacent to corresponding numbers of the apertures 27. These indicia may be placed at the lower ends of the apertures immediately adjacent to the associated control members 13, in which case it is unnecessary to provide the control keys 13 with identifying numerical indicia, such as the numerals 217 on the keys 212 of Patent No. 2,389,327, above referred to.

However, with the indicator unit 14 mounted in the manner hereinbefore described, such latter identifying numerical indicia are unnecessary, since the indices 18 are so arranged in physical and visual juxtaposition to their associated control members 13 as to eliminate the necessity thereof. At the same time, the several identifying indices 18 are so arranged in relation to each other as to be readily readable individually and to eliminate any possibility of confusion as to which of the several control members 13 should be operated to cause the playing of any record identified by such indices.

Whenever it is desired to change the records in the phonograph, the closure member or door 12 is opened to give access to the interior of the cabinet 11. Any such changes necessitate corresponding changes of the indices 18 identifying the individual records. With the door 12 open, it is an extremely simple matter to take hold of the holders or spring members 35, depress the same, and lift out the auxiliary frame member 17. All desired substitutions or replacements of the indices 18 may then readily be accomplished, the numerical indicia 39 functioning to accurately identify the proper guide-way formed by the tabs 36, 37 into which any particular one of the indices 18 should be placed. It is an equally simple procedure to re-insert the removable auxiliary frame member 17 in the indicator unit, the spring members 35 automatically being depressed by the straps 33 in such operation and then returning upwardly to their position of Fig. 3 to releasably latch the auxiliary frame member in place, the straps 33 and lugs 34 thus functioning as the latching means for retaining the auxiliary frame 17 on the main frame 16.

While the instant invention has been illustrated herein as incorporated in a multi-record automatic phonograph, it will be readily understood that it is equally well adapted for use with any other device employing a row of manually operable control members, and that the indicator unit alone is susceptible of many uses apart from its association with such control members.

It is thought that the invention and many of its attendant advantages will be understood from the foregoing description, and it will be apparent that various changes may be made in the form, construction and arrangement of the parts without departing from the spirit and scope of the invention or sacrificing all of its material advantages, the form hereinbefore described being merely a preferred embodiment thereof.

I claim:

1. In a multi-record phonograph having a record-housing cabinet, a closure member therefor, and a plurality of manually operable control members mounted on said closure member for individually controlling the selection of a particular record to be played, an indicator unit mounted on said closure member, comprising a main frame member having a plurality of elongated apertures each terminating adjacent one of said control members, an auxiliary frame member removably mounted in said main frame member, a plurality of indices individually identifying the different records in the phonograph, means for removably retaining said indices on said auxiliary frame member to facilitate rapid changing thereof when said auxiliary frame member is separated from the unit and operable with said auxiliary frame member to visually align said indices with the apertures in said main frame member when said auxiliary frame member is mounted therein, and latching means for retaining said auxiliary frame member in said main frame member and manually releasable when said closure member is open to facilitate ready removal of said auxiliary frame member.

2. In a multi-record phonograph having a record-housing cabinet, a closure member therefore having a glass panel therein, and a plurality of manually operable control members mounted on said closure member forwardly of said glass panel for individually controlling the selection of a particular record to be played, an indicator unit mounted on said closure member rearwardly of said glass panel, comprising a main frame member having a plurality of elongated apertures each terminating adjacent one of said control members, an auxiliary frame member removably mounted in said main frame member, a plurality of indices individually identifying the different records in the phonograph, means for removably retaining said indices on said auxiliary frame member to facilitate rapid changing thereof when said auxiliary frame member is separated from the unit and operable with said auxiliary frame member to visually align said indices with the apertures in said main frame member when said auxiliary frame member is mounted therein, and latching means for retaining said auxiliary frame member in said main frame member and manually releasable when said closure member is open to facilitate ready removal of said auxiliary frame member.

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