June 1, 1926.

1,587,200

W. C. SUTCLIFFE

RECORD CABINET

Filed April 2, 1924

2 Sheets-Sheet 1

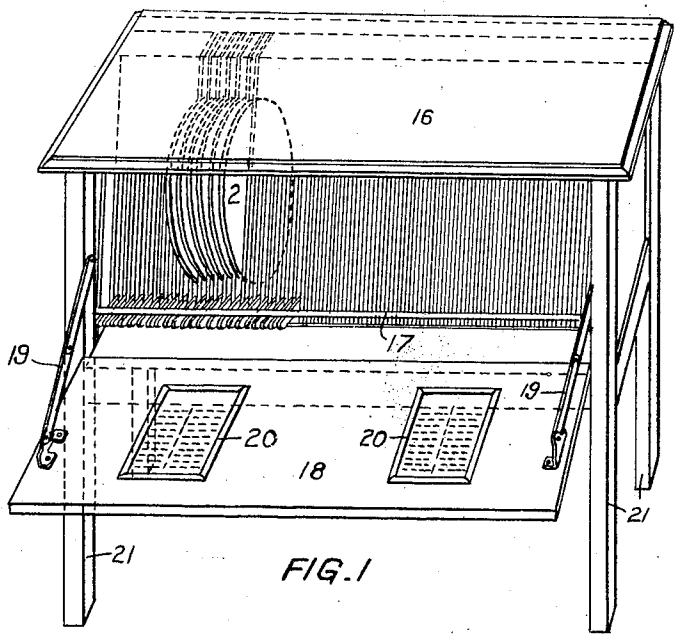


FIG. 1

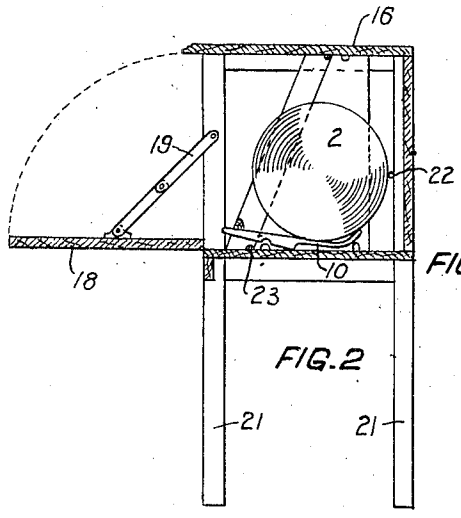


FIG. 2

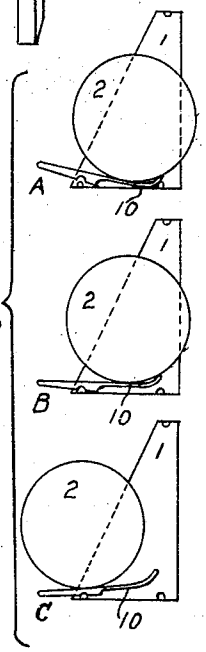


FIG. 3

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2 Sheets-Sheet 2

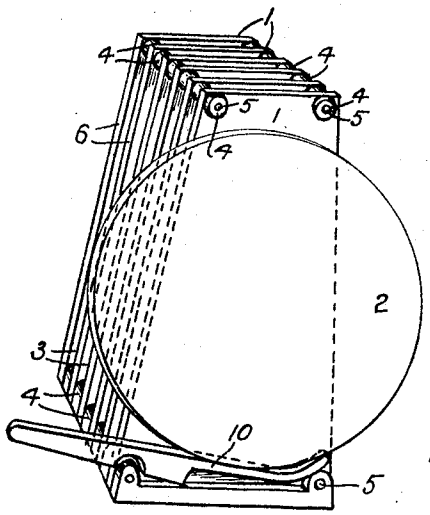


FIG. 4

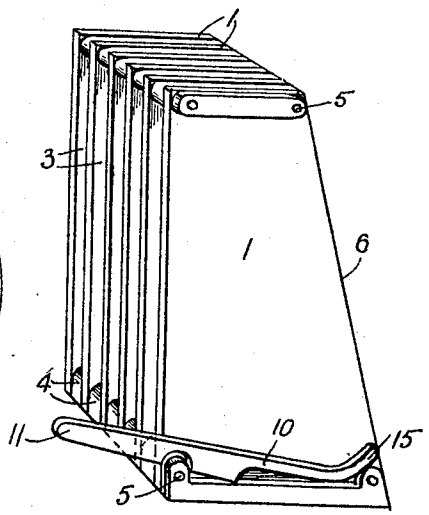


FIG. 5

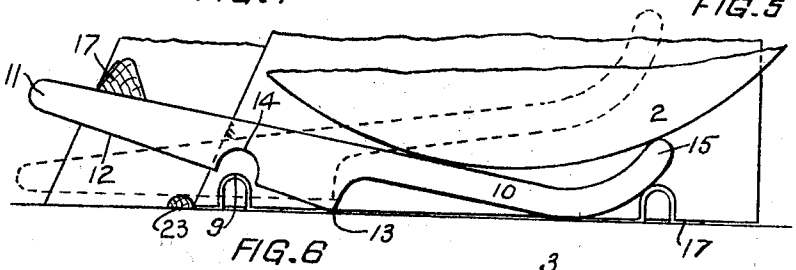


FIG. 6

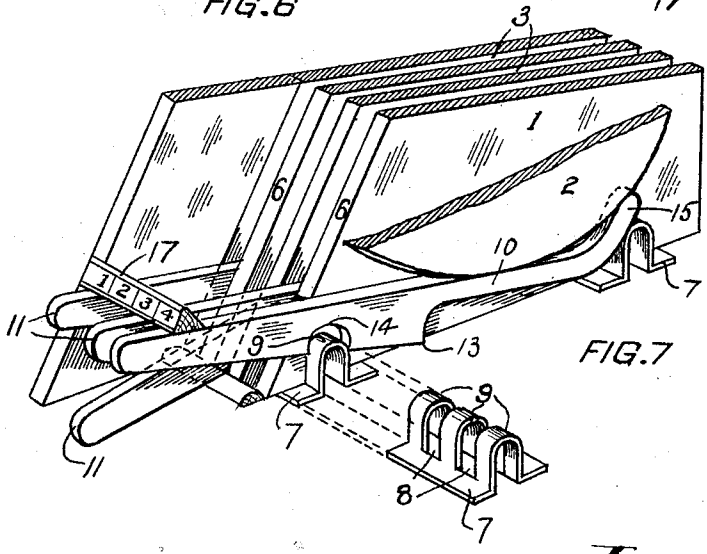


FIG. 7

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UNITED STATES PATENT OFFICE.

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RECORD CABINET.

Application filed April 2, 1924, Serial No. 703,804, and in Australia April 18, 1923.

This invention relates to compartmented receptacles for disc records of talking machines and to means associated with the separate compartments of such receptacles adapted to enable records carried therein to be readily delivered or removed therefrom and replaced therein and when an individual record is removed to give a visible indication of the particular compartment from which said record has been removed.

The delivery and indicator means are adapted for use either in connection with the receptacles to which this present invention refers or to any other suitable talking machine disc record receptacle or cabinet which is provided with a pivotal device at its forward end to enable said means to be canted thereon.

One advantage of my invention appears in the possibility of giving to the disc record a slowly rising motion to a horizontal position followed by a rapid ejecting motion all by a uniform movement of the forward end of the lever 10, thus avoiding the possibility of throwing the discs upwardly and possibly damaging them by a too rapid operation of the ejector.

Referring to the accompanying drawings in which embodiments of the invention are illustrated, Fig. 1 is a perspective view of a talking machine disc record cabinet; Fig. 2 a cross-section thereof; Fig. 3 detail views illustrating positions of the tilting lever and a disc record thereon; Fig. 4 a view of a bank of disc record compartments showing one of the tilting levers and disc record thereon; Fig. 5 a view similar to Fig. 4 but showing the bank of compartments in reversed position; Fig. 6 an enlarged detail view illustrating the tilting lever and the upper and lower positions thereof in full and dotted lines respectively; and Fig. 7 a detail view showing a series of tilting levers in a series of disc record compartments and means serving as separators for the side walls of said compartments and front pivotal means for said levers.

Receptacles in accordance with the invention are preferably constructed of wood though they may be constructed of other suitable material. Boards of wood or other suitable material 1 of about one eighth inch thick may be utilized in the manufacture of the receptacles. The length of such boards 1 and the width thereof are dependent on the size of the disc records 2 to be carried in the separate compartments 3 of the receptacles. Two boards 1 are used for each compartment 3 and these may be spaced apart by metal or other suitable distance buttons 4 or the like two of which are provided at the ends of the boards 1 at the head and foot thereof. Such buttons 4 and boards 1 are holed to enable a wire or metal or other rod 5 to be threaded therethrough so that a series of compartments 3 may be provided for disc records 2 when a series of boards 1, buttons 4 and connecting wires or rods 5 have been secured together. The ends of the wires or rods securing together a series of compartments 3 forming a receptacle for disc records 2 may be threaded if required to receive a nut or such ends may be secured in any other convenient manner. The thickness of the distance buttons 4 will be sufficient to enable the disc records 2 to be readily inserted into or removed from the separate compartments 3 of the receptacles. It is preferable to cut the wood boards 1 in such manner that their forward or rear faces 6 will be inclined (Figs. 4 and 5), the bottom of the boards in such event being wider than the heads thereof. Any number of separate compartments 3 for disc records 2 may be furnished in connection with receptacles built up from the wood boards 1.

Instead of providing the buttons 5 as distance pieces for the boards 1, angular metal strips 7 (see Fig. 7) may be furnished for this purpose. These angular strips may be stamped in such manner that openings 8 will be left between curved arched connectors 9 which serve to join the opposite flat portions of the strips 7 to each other. Separate boards 1 may be placed in the separate openings 8 of the strips 7, the curved arched metal portions 9 of the said strips serving as distance pieces between the said boards and regulating the width of the disc record compartments 3. Metal strips 7 are provided both at the head and foot of the boards 1 when such strips replace the buttons 4. The flat portions of the strips 7 may rest on any suitable foundation.

To enable the records 2 to be readily carried in and delivered from the separate compartments 3 as well as to provide a visible indication in reference to each compartment 3 of the withdrawal of a record 2 from a particular compartment a separate tilting lever 10 preferably constructed of wood is associated with each of the compartments 3

of the receptacle. These levers 10 are not fastened to said compartments; they are removably mounted therein and are made to fit the foot thereof. The forward end 11 of the separate levers 10 projects from the front of the compartments 3 in which they are located; such end 11 may have a depression therein to receive a metal or other plate having thereon a marking or markings to correspond with a marking or markings carried on a record 2 to be placed in the compartment in which the correspondingly marked lever 10 is situated. It is preferred, however, to fasten to the forward portion of the receptacles in any convenient position an indicator plate 17 having markings thereon corresponding with the separate compartments 3 and the records 2 placed therein.

Said levers 10 are so constructed that their front portion is of greater weight than their rear portion. The lower edge 12 of the front portion is also inclined and it is provided with two fulcrum points, one of such points 13 being rearward of the other of such points 14 and below same. The forward fulcrum point 14 is formed by grooving the lower edge of the lever 10. The inclination of such edge 12 extends from the forward part of the lever 10 to about the middle thereof, the forward part of the lever 10 being of less depth than its middle part. At its rear the lever 10 is provided with an inclined stop piece 15 adapted to abut the ends of records 2 when they are placed in compartments 3 furnished for them. Said stop pieces 15 may abut either the buttons 4 or the strips 7 situated at the rearward lower portion of the compartments 3.

It is intended that the receptacles and their associated levers 10 be mounted in or on a suitable cabinet or other container 16 or on suitable shelves or other supports, so that when the receptacles are properly positioned the floor of the containing cabinet 16 or other support will act as an abutment for the rearward fulcrum point 13 of the levers 10 when they are tilted. The grooved fulcrum point 14 of the levers 10 will also coact with the distance buttons 4 or strips 7 located at the forward lower end of the separate compartments 3 when the levers 10 are tilted downwardly to remove a record 2 from the compartment 3 in which it is positioned. Should the receptacles not be carried in a cabinet or other support whereby an abutment would be provided thereby for the rear fulcrum point 13 of the lever 10 an abutment strip therefor would need to be secured to the foot of the separate compartments 3 and the end boards of the receptacles could then be attached to suitable leg or other supports.

When the receptacles have been built up with their separate compartments 3 and the levers 10 with the abutments before described are provided therefor, disc records 2 may be placed in the particular compartments 3 intended for them. Upon placing a record 2 in a compartment 3 the lever 10 associated therewith is tilted so that its forward exposed end 11 will be elevated (see A Fig. 3). To obtain delivery of the record 2 from a compartment 3 it is only nesessary to slightly depress the lever 10 associated therewith when the rear fulcrum point 13 of the depressed lever 10 will permit the upper edge of the latter to be brought to about horizontal position (see B Fig. 3) and the disc record carried on the lever will be slightly elevated in the compartment 3 and brought partly forward from the latter; further depression of the lever 10 (see C Fig. 3) results in the rear fulcrum point 13 of the lever 10 leaving its abutment and the forward fulcrum point 14 of the lever 10 being made to contact with the distance button 4 or strip 7 at the forward lower end of the compartment 3 when the rear of the lever 10 will be further elevated and its stop piece 15 will serve to enable the record 2 carried on the lever to roll forward from the compartment 3 by gravity. Subsequently the lever 10 is allowed to return to about horizontal position (see B Fig. 3), so that its forward end is then below the forward end 11 of the levers 10 in other compartments 3 in which records 2 are mounted (see A Fig. 3). Such position of the lever 10 gives a visible indication to a person in regard to the particular compartment from which a record 2 has been withdrawn. The lever 10 remains in the lower horizontal position (see B Fig. 3) until the record 2 is returned to the compartment 3 from which it was withdrawn, when the lever 10 is automatically tilted so that its forward exposed end 11 will be raised to normal or elevated position (see A Fig. 3).

The cabinet or container 16 shown in Fig. 1 has fitted thereto a series of compartments 3 for disc records 2. Such receptacle is furnished with a closable door 18 attached to folding hinges 19, the said door having thereon two indicator cards or like devices 20 which may carry particulars of the records 2 stored in the compartments 3. Suitable legs 21 support the container 16. On the rear wall of the said container 16 padded strips 22 of any suitable design and shape may be mounted to serve as rear contacts for the records 2. The forward portion of the bottom of the container 16 may also carry padded strips 23 against which the levers 10 may contact when they are depressed. If required a disc record talking machine may be associated with the cabinet or container in which the compartments 3 are provided.

If desired the receptacles may be arranged in tiers of two or more in a cabinet or on shelving or other suitable supports in which event it is necessary to provide an abutment strip between each tier for the rear fulcrum point 13 of the levers.

In case the levers 10 above described are to be used in association with disc record compartmented receptacles other than those above described it is only necessary to provide in such receptacles abutments for the rear of the levers 10 and their rear fulcrum point 13 and a pivotal device at the forward lower portion of the compartments for the forward grooved fulcrum point 14 of the levers 10.

It will be understood from the foregoing description and the accompanying drawings that the records 2 when they are placed in the compartments 3 rest on the levers 10 with their extreme rear edges contacting with the strips 22 and that each of the levers 10 is furnished with two fulcrum points 13 and 14. By providing the levers 10 with such points it is ensured that when a record 2 is placed on a lever 10 within its selected compartment 3 the weight of the record 2 when it passes the fulcrum point 13 automatically causes the lever 10 to tilt backwardly into the compartment 3 whereby an acclivity for the record 2 is furnished on the lever 10 and the record 2 is thus prevented from moving forwardly from the compartment 3. Further, when the forward end 11 of the levers 10 is depressed such acclivity is changed to a declivity on the levers 10 to enable the records 2 to move automatically from the compartments 3. In the depression of the levers 10 the fulcrum points 14 thereof are made to bear on the arches 9 and full depression of the levers 10 to remove records 2 from compartments 3 results in the fulcrum points 13 leaving their abutments. As, however, the portion of the levers 10 between the fulcrum points 13 and the extreme forward edge 11 of the levers 10 is heavier than the portion of the levers 10 between such fulcrum points 13 and the extreme rear end 15 of the levers 10 the latter are not tilted fully backward into the compartments 3 when pressure is relieved from the forward end 11 of the levers 10, but they automatically partly tilt backward until the fulcrum points 13 meet their abutments. In such position of the levers 10 the forward ends 11 thereof projecting beyond the face of the compartments 3 carrying them are in a lower plane to the forward end 11 of other levers 10 on which records 2 are being supported; such lower position of the levers 10 mentioned gives a visible indication as to a particular compartment or compartments 3 from which a record or records 2 has or have been discharged. Full tilting of the levers 10 rearwardly in their compartments 3 is always consequent on the records 2 being placed thereon within such compartments 3, and tilting of the levers 10 forwardly to deliver records 2 is consequent on pressure being applied to the forward end 11 of the levers 10. The forward fulcrum points 14 being near such forward end 11 enable the rearward end 15 of such levers 10, upon pressure being applied to such forward end 11, to describe a larger arc and to exercise a continued pressure on the edge of the records 2 so as to ensure expulsion of the latter from the compartments 3.

What I claim as my invention and desire to secure by Letters Patent is:—

1. A receptacle for disc records of talking machines comprising a series of compartments arranged side by side an abutment near the forward end of each compartment, the bottom of each compartment also serving as an abutment, a series of tilting levers mounted in said compartments each adapted to carry a disc record thereon, said levers having two pivotal points one of which is disposed rearwardly of the other, the said rearward pivotal point of each lever being adapted to contact with the abutment constituted by the bottom of the compartment when a disc record is positioned thereon and within the corresponding compartment and to serve as a pivot for partial depression of the forward end of said levers, and the other pivotal point being adapted to contact with the forward abutment when the forward end of the lever is further depressed to enable gravity displacement from said compartment of the separate record carried therein on said lever.

2. In a receptacle for disc records of talking machines according to claim 1, the combination with said receptacle of distance pieces between the side walls of the compartments thereof, said distance pieces consisting of angular strips of metal with spaces for the reception of adjacent walls of said compartments and curved arches joining the opposing side edges of said strips, the said strips being adapted to receive a series of said walls whereby a series of compartments for disc records are furnished when the said walls and strips are secured together, and the curved arches of said strips located at the forward lower ends of the said compartments are adapted to act as fulcrums for the forward pivotal points of the levers carried in said compartments.

3. In a receptacle as claimed in claim 1, wherein the forward pivotal point of each lever consists of a groove provided in the under surface of the lever for rocking movement about the forward abutment while the rear pivotal point is in the form of a depending pointed portion for coacting with

the bottom of the compartment, substantially as and for the purposes set forth.

4. In a receptacle for disc records of talking machines having a series of compartments therein for the storage of such records, the combination of a series of tilting levers of which one is provided for each of said compartments and each of which has the rear end upturned, each of said levers also having two pivotal points, one of such points being located at a position between the forward exposed end of said lever and the middle portion thereof, and the other of said points being located at about the said middle portion, the said forward exposed end of each of the said levers being adapted to lie in an elevated position when a disc record is carried thereon in the corresponding compartment, and said end being adapted to lie in a substantially horizontal position when a disc record previously carried thereon is discharged from its compartment.

In testimony whereof I affix my signature.

WILLIAM CHARLES SUTCLIFFE.