

G. E. ADAMS,
PHONOGRAPH DISK RECORD HOLDER AND EJECTOR.
APPLICATION FILED MAR. 19, 1917.

1,270,584.

Patented June 25, 1918.

2 SHEETS—SHEET 1.

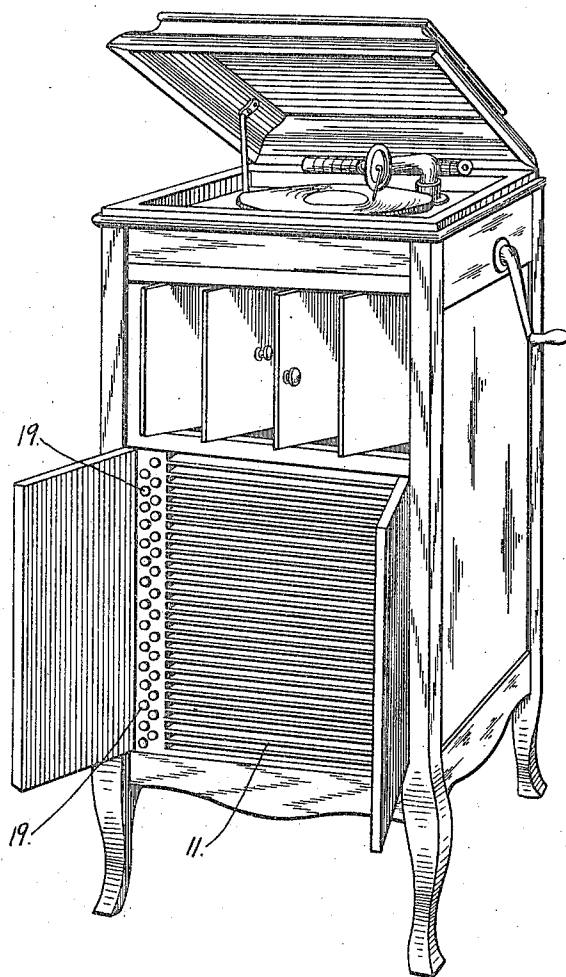


Fig. 1.

Inventor
George E. Adams.
By *Wilkinson, Ginata + MacKay*
his Attorneys

G. E. ADAMS.
 PHONOGRAPH DISK RECORD HOLDER AND EJECTOR.
 APPLICATION FILED MAR. 19, 1917.

1,270,584.

Patented June 25, 1918.
 2 SHEETS—SHEET 2.

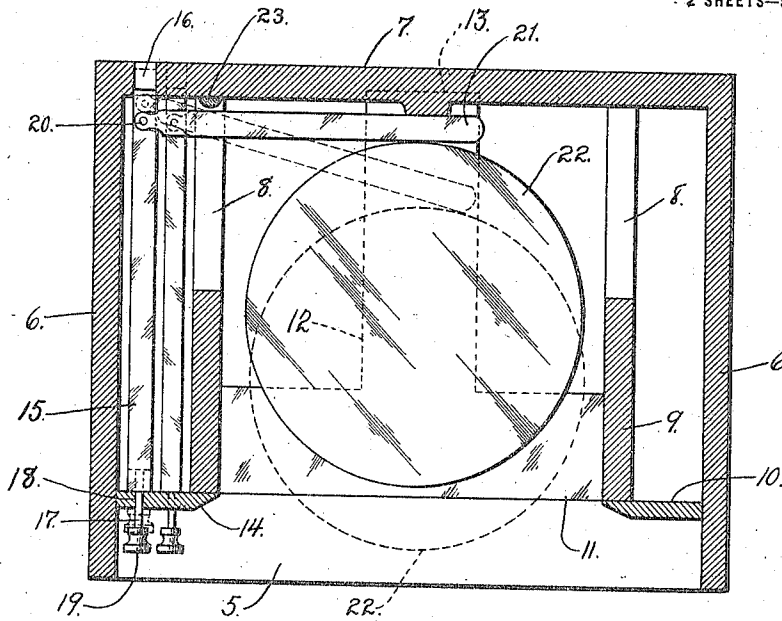


Fig. 2.

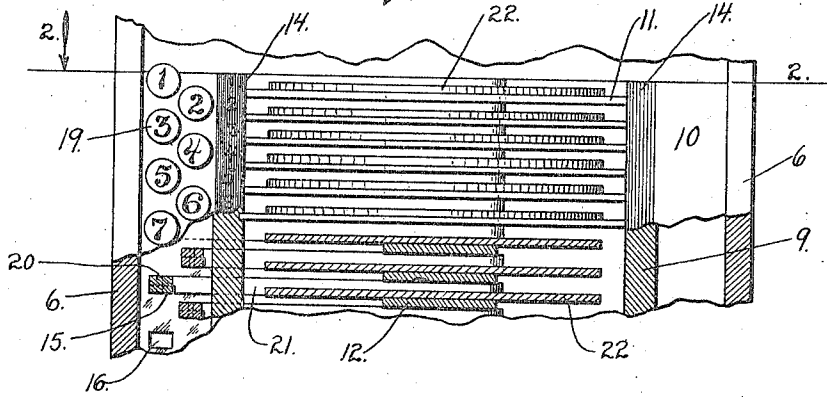


Fig. 3.

Inventor
 George E. Adams.
 By *Wilkinson, Giveta & Mackay*
 his Attorneys

UNITED STATES PATENT OFFICE.

GEORGE E. ADAMS, OF SALT LAKE CITY, UTAH, ASSIGNOR OF ONE-THIRD TO DANIEL ALEXANDER AND ONE-THIRD TO HAMMOND O. WILLIAMS, BOTH OF SALT LAKE CITY, UTAH.

PHONOGRAPH-DISK-RECORD HOLDER AND EJECTOR.

1,270,584.

Specification of Letters Patent. Patented June 25, 1918.

Application filed March 19, 1917. Serial No. 155,896.

To all whom it may concern:

Be it known that I, GEORGE E. ADAMS, a citizen of the United States, residing at Salt Lake City, in the county of Salt Lake and State of Utah, have invented certain new and useful Improvements in Phonograph-Disk-Record Holders and Ejectors; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in cabinets for phonographic disk records, such as used on graphophone and gramophone machines, of a type adapted to contain the disk records in individual selective arrangement, whereby, upon the actuation of a complementary selective key, any desired record in the cabinet may be automatically projected or ejected independently of the remaining disk records therein.

This has heretofore been accomplished with partial success by cabinets having a series of vertically disposed compartments, for the reception individually of the disk records, associated with actuating mechanism, comprising selective push bars, cooperating with spring controlled ejector levers pivoted thereto, but such an arrangement has not proven entirely satisfactory for many and varied reasons, which will more fully hereinafter appear in comparison with my present improvements.

In a preliminary way, however, I might state briefly that the arrangement of the disk records perpendicularly, provides only for a minimum number of records that the cabinet might contain, as it restricts the number to the exact width of the cabinet, leaving much waste space between them and the bottom of the talking machine proper, which space is generally covered by an ornamental front panel.

Also, the spring controlled actuating mechanism, with its several parts and connections, has its great disadvantages, outside of the primary fact that its parts get out of working order, by becoming displaced, wedged or broken, rendering the cabinet ineffective as a whole until repaired, all of

which is of considerable annoyance and expense.

One object of the present invention, therefore, is to overcome these objectionable features, in the accomplishment of which, I arrange the individual disk record compartments in horizontal series, thus enabling me to utilize the maximum disk record containing space of the lower compartment of the phonograph cabinet of whatever make or type, and in conjunction with this horizontal disposition of the compartments, I have devised the simplest form of actuating mechanism, which eliminates all unnecessary pivotal connections, springs and multiplicity of parts, liable to become displaced, wedged, broken or otherwise disabled.

At the same time, while my construction and arrangement is so simple as to be comparatively cheap to manufacture and assemble, it is in fact much more durable and positive and effective in action than the more complicated arrangements of the prior art.

Other objects and advantages will appear from the following description, and the essential features of novelty will be pointed out more particularly in the appended claims.

To more clearly understand the invention, reference will now be made to the accompanying drawings, forming a part of this application, in which drawings like reference characters designate the same parts in the several views, of which—

Figure 1, is a perspective view of a graphophone cabinet with my improved disk record holder and ejector shown as fully filling the bottom compartment thereof, and with the disk records omitted.

Fig. 2, is a sectional plan view, taken on the line 2—2 of Fig. 3, above one of the disk compartments, and showing a disk record, its ejector arm and push bar, in full lines, in their normal positions, as when the record is not called for, and in dotted lines illustrating the positions assumed when the actuating mechanism has been operated to eject a selected record, and

Fig. 3, is a fragmentary view looking toward the front of the cabinet as shown in Fig. 2, the upper portion being shown in ele-

vation, and the lower portion in vertical section.

It may be stated at the outset that, the record containing cabinets may be built up as
5 completely incased sectional units, of desired dimensions, for stacking up after the fashion of sectional book cases, where a great number of records are kept, such as in music stores, talking machine establishments, and
10 even in private homes.

Or as such an incased unit it may be bodily inserted in a corresponding sized phonograph cabinet base compartment, although
15 in the latter case, it would probably be built up as a part of the phonograph cabinet itself, in that the bottom, side and rear walls of the phonograph cabinet would serve as the inclosing casing for my record holding cabinet.

20 However, in this application, the invention being the same in all cases, I shall describe my improvements as a unit complete in itself, rather than as a built in part of any particular type of phonograph cabinet
25 base.

The record holding cabinet may be of any suitable structure, but for the purpose of lightness, combined with strength and durability, it is preferably of open box-work construction, having a base and top, flat front
30 and rear pieces 5, side and rear inclosing walls 6 and 7, and spaced reinforcing struts or pieces 8, the forward portion of which extend upwardly in the nature of vertical
35 supporting walls 9, for supporting certain rack elements or shelves, and 10 are vertical narrow front walls, between the supporting walls 9 and casing side walls 6, the front of the cabinet being virtually open, all of which
40 will hereinafter more fully appear. Of course, when built up into a special phonograph cabinet base, the numerals 6 and 7 would designate the side and rear walls of the phonograph cabinet itself, and 5 the
45 bottom of the base compartment.

11 designates a transversely disposed narrow front shelf, and 12 a rearwardly extending branch thereof, the two forming one of a series of open T-shaped racks, arranged
50 in parallel horizontal rows to provide for a substantially indefinite series of horizontal compartments, restricted in number only by the height of the lower compartment of the phonograph cabinet, which compartments
55 are of a proper vertical depth to receive in slidable relation a disk record, or a disk record and its sales envelop, in flatwise position, or preferably still a disk record in a dust proof soft casing, which would keep them
60 cleaner and less liable to scratching or other injury, than by the employment of any automatic cleaning arrangement heretofore employed.

The ends of the front shelf portions are

secured in the supporting walls 9 and the
65 ends of the rear extensions 12 are fitted in the rear inclosing wall 7, as indicated at 13 in Fig. 2.

These rack elements 11—12 or the forward shelf portion 11 may be covered with
70 felt, velour or similar lining, if desired, to present a more finished appearance and to prevent scratching or abrasion of the records, but where a dust proof soft casing is employed, as above suggested, this would be
75 entirely unnecessary and an additional expense only.

The inner edge portions of the narrow front walls 10 are beveled, as indicated at
80 14, and on one of these beveled faces are arranged a series of indicia, numerals being shown, each of which indicates one compartment of the cabinet. It is obvious that these
85 indicia might be arranged on the other beveled face also, should it be found desirable to arrange a series of push bars on the opposite side of the cabinet as well, alternating
90 with the actuating mechanism shown on the left hand side, only, in the drawings.

One of the primary characteristics of the
95 invention is the simplicity and positive action of this actuating mechanism, as hereinbefore stated, which will now be specifically described.

Within the vertical space inside the inclosing wall 6, shown at the left hand side
95 in the drawings, are arranged a plurality of rearwardly projecting horizontally disposed push bars, rods or slides 15, the rear ends of which are slidably mounted in guide openings 16, and the forward ends of which have
100 a cylindrical neck or pin extension 17, integral or otherwise, bearing through the aperture 18 in the narrow front wall 10. The ends of these pins are provided with
105 a head or push button 19, which carries indicia corresponding to that on the beveled face 14 adjacent thereto.

To the rear ends of these push bars 15 are pivoted, in any suitable way, such as by a
110 mortised joint as indicated at 20, the outer ends of horizontally disposed ejector arms 21, the free inner ends of which latter are mounted to slidably ride in the disk record
115 compartments of the cabinet, behind the disk records, engaging the disk records peripherally in their own plane, and exerting a leverage force in that same plane in ejecting
120 the disk records 22 flatwise. This has a substantial degree of importance, for that in ejecting the disk records flatwise they cannot be projected completely out of the cabinet, which may be the case where vertical compartments are employed and the disks are
125 rolled out peripherally, resulting in their falling to the floor and being broken.

A common vertical pivot rod could be employed, passing through all of these ejector

arms at a position say a little to the right of their pivotal connections with the push bars, or furnishing a proper fulcrum to provide leverage for the same, but my one chief aim in this connection is simplicity in construction, arrangement and assembly, in the avoidance of unnecessary working parts, and I prefer to make the push rods and ejector arms slidable bodily together, in so far as any other binding connections may be concerned. In order to provide a proper fulcrum, therefore, I simply mount a vertical rod behind the ejector arms, as shown for illustration, a vertical strip or bead 23 fixed to the rear wall 7, which will provide a disconnected common fulcrum for all of the ejector arms 21.

From the foregoing complete statement, it is believed that the operation of the improved construction will be fairly apparent, but may be stated as follows:

With the parts shown in the position indicated in full lines in Fig. 2, in pushing in on the top button 19, for instance, its push bar 15 is moved rearwardly, carrying with it the outer end of its ejector arm 21, which engaging at its rear edge against the common fulcrum 23 will throw its free inner end outwardly with a gentle uniform movement, and the edge of this free inner end engaging its disk record 22 peripherally, in its own plane, will slide the record forwardly of its compartment to project therebeyond a sufficient distance to be readily extracted for use, all as shown in dotted lines. Thus while my actuating mechanism is extremely simple, and free from parts that are liable to break or get out of order, still the operation is not only facile, but the action is positive yet gentle and without any jerky thrusts, which are liable to roll a vertically disposed record out on the floor.

In prior constructions, with spring controlled actuating mechanisms, when the record has been projected the spring control returns all of the parts to their normal positions. In my arrangement, when the record has been extracted, the actuating mechanism remains dormant, with the push button still in, serving in that position to indicate where the record has been taken from and is to be replaced, without having to search for the slot opening that is minus a record.

When the record has been played, and it is desired to return the same to the cabinet, its proper compartment is readily ascertainable, and upon pushing the record back in place the actuating parts are returned to their normal position, and the push button thrust out again. Thus there is nothing to bind, or get displaced, or break or otherwise get out of order.

I have herein only stated some of the

many advantages that my improved cabinet possesses over those in the art as known to me, and I will not attempt in this specification to enumerate all, but will emphasize finally that, outside of the simplicity of the actuating mechanism and the combined arrangement and functioning of the elements generally, the horizontally disposed compartments enable me to store the maximum amount of records of all makes, regardless of their thickness or diameter, which vary within wide limits as is well known.

They also enable me to retain records in their original packages, envelopes or in dust proof sacks or covers, for the horizontal compartments provide for the flatwise sliding projection of the record when ejected, and there is no interference with this planetary movement, which would not be the case in cabinets having vertical compartments, as the envelop or bag containers would prevent the rolling of the records out of their compartments.

Furthermore in these vertically arranged compartments, the construction is necessarily so frail and thin to secure anything like the necessary space to store a substantial number of records, and the ejector mechanism necessarily so correspondingly delicate that, outside of the parts breaking or otherwise becoming defective, the ejector arms themselves oftentimes bind, and it is impossible to eject the records at all, all of which is avoided by the horizontal arrangement and more substantial construction.

Having thus fully disclosed my invention it will be understood that I do not limit myself to the exact details set forth, excepting as come within the purview of the ensuing claims and a reasonable construction of the scope thereof contemplating a fair range of equivalents.

What I do claim as new and patentable, is:—

1. In a disk record cabinet, substantially as set forth, the combination of a casing including a horizontal series of flat T-shaped rack elements mounted to provide a corresponding series of horizontally disposed compartments, each adapted to receive an individual disk record in flatwise sliding position; an ejector element slidably mounted in each compartment at the rear thereof to engage an inserted record; and selective means operatively engaging the individual ejector elements for moving any of said ejector elements forwardly at will to project a desired record, substantially as described.

2. In a disk record cabinet, substantially as set forth, the combination of a casing providing a series of horizontally disposed compartments, each adapted to receive an individual disk record in flatwise sliding position; an ejector arm for each compartment,

having a free inner end slidably mounted therein at the rear thereof, to peripherally engage an inserted disk record in its own plane, and at its outer end projecting toward one side of said casing; an individual selective push bar for each of said ejector arms, operatively engaging the outer ends

thereof for swinging the inner end of any of said ejector arms forwardly at will to project a desired record; and a fulcrum element disconnected from but common to all of said ejector arms, substantially as described. 10

In testimony whereof, I affix my signature.
GEORGE E. ADAMS.