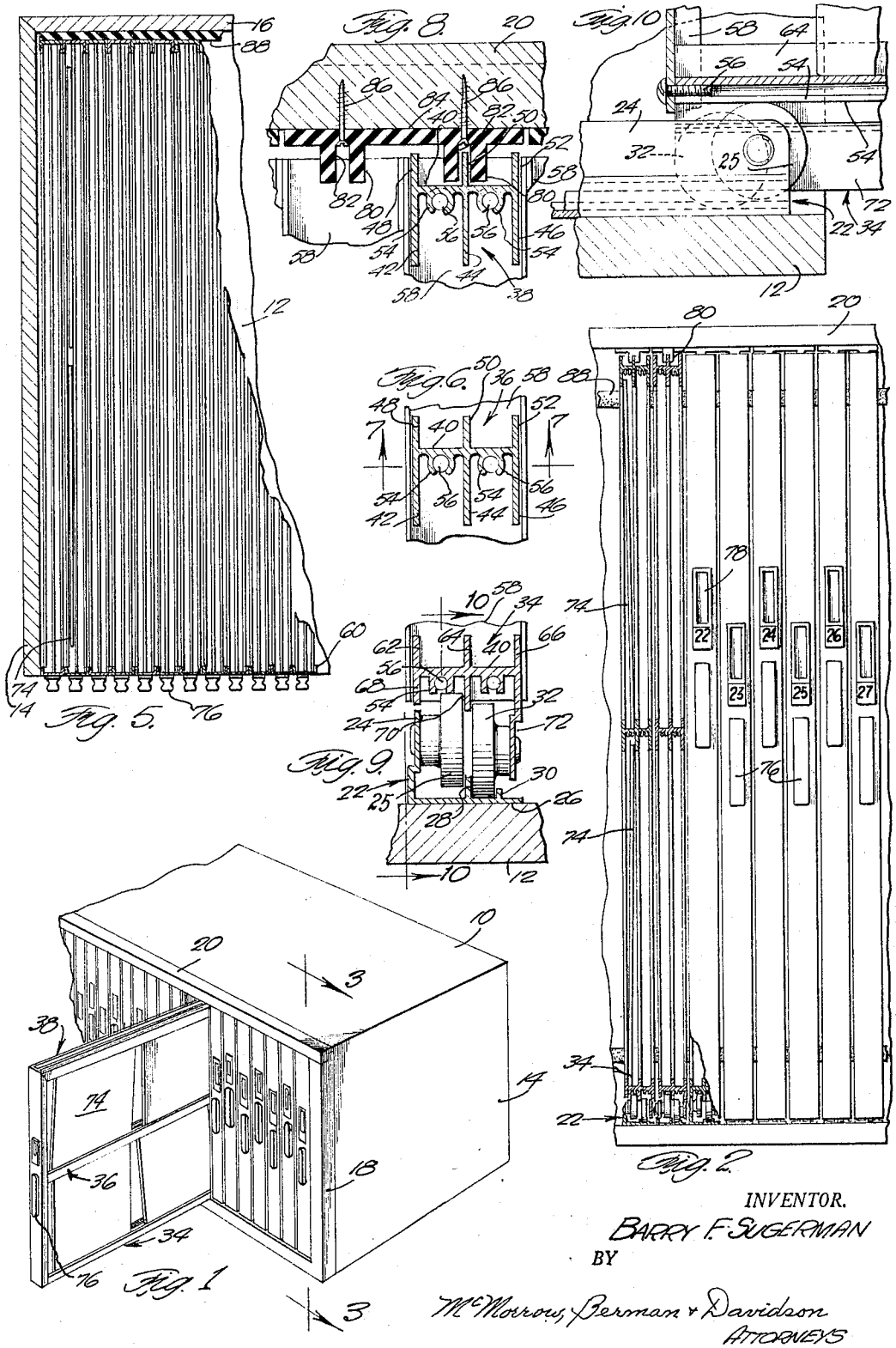
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STORAGE AND RECORD RACK

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STORAGE AND RECORD RACK

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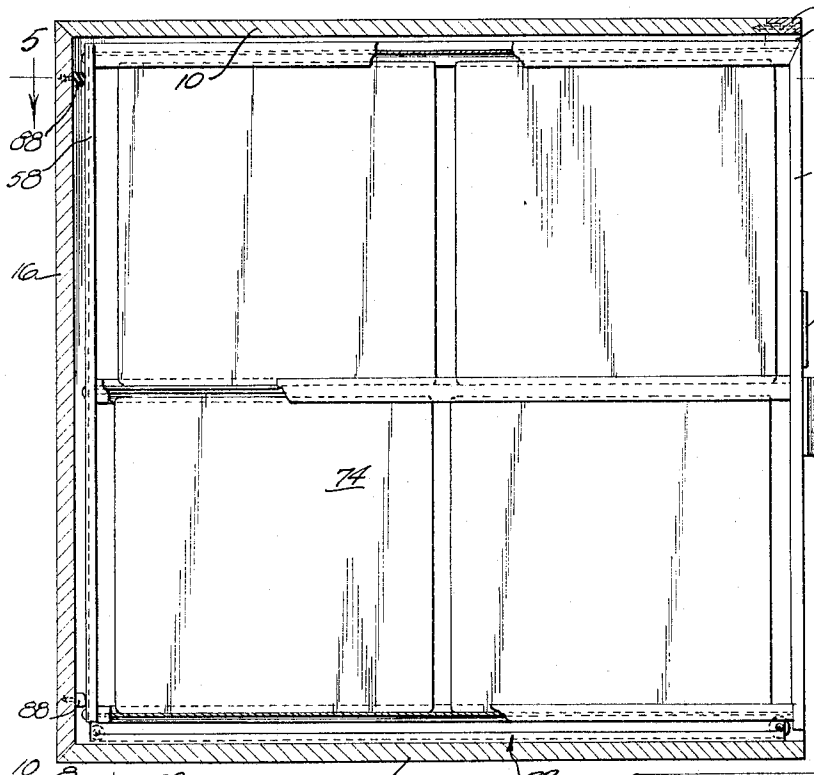


Fig. 3.

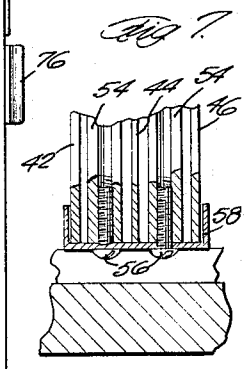


Fig. 7.

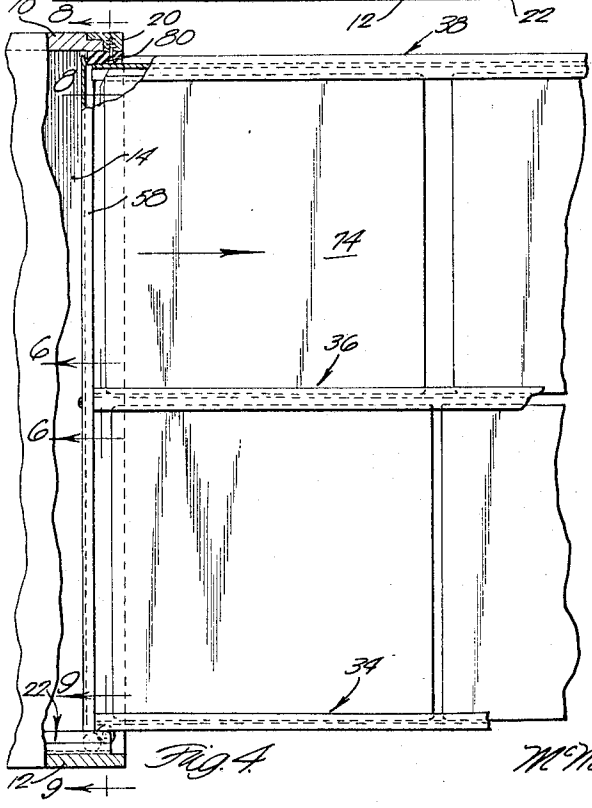


Fig. 4

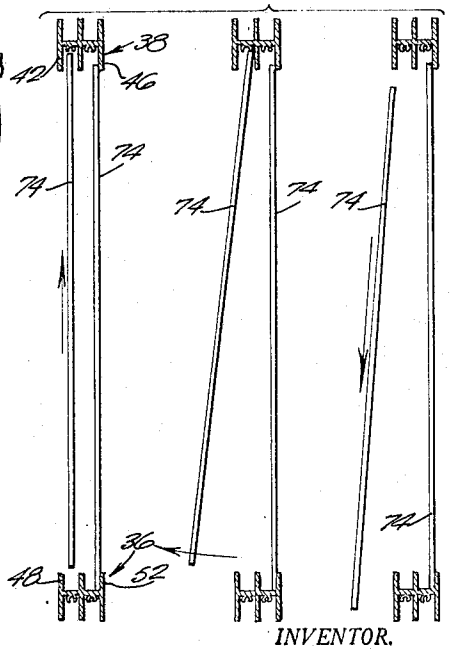


Fig. 11.

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STORAGE AND RECORD RACK

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4 Claims. (Cl. 312—12)

This invention relates to a storage rack for phonograph records, and in particular to a rack in which vertical receiving trays are slidingly arranged in a storage cabinet.

It is a general object of the invention to provide a storage system having a favorable degree of compactness. Another object is to provide storage for a maximum of records in a minimum of space, without sacrifice to facility of storage and removal.

The objects also include provision of a device which is relatively simple in structure, yet sturdy and serviceable, and which is easy of manufacture, and low in cost.

These and other objects, which will be apparent, are attained by the present invention, a preferred form of which is described in the following specification, as illustrated in the drawing, in which:

FIGURE 1 is a perspective view of a fragment of a storage cabinet, constructed according to the invention,

FIGURE 2 is a front elevational view of a portion of the cabinet of FIGURE 1, to enlarged scale, and partly broken away to show interior features of structure,

FIGURE 3 is a vertical, sectional view, taken on the plane of the line 3—3 of FIGURE 1,

FIGURE 4 is a view similar to FIGURE 3, showing one of the sliding trays withdrawn,

FIGURE 5 is a horizontal, sectional view, taken on the plane of the line 5—5 of FIGURE 3,

FIGURE 6 is a sectional view of a detail, taken on the plane of the line 6—6 of FIGURE 4,

FIGURE 7 is a sectional view taken on the line 7—7 of FIGURE 6,

FIGURE 8 is a sectional view of another detail, taken on the plane of the line 8—8 of FIGURE 4.

FIGURE 9 is a sectional view of still another detail, taken on the plane of the line 9—9 of FIGURE 4,

FIGURE 10 is a sectional view, taken on the plane of the staggered line 10—10 of FIGURE 9, and

FIGURE 11 is a bracketed view, showing three stages of removal of a packaged record from one of the trays shown in the sectioned part of FIGURE 2.

Referring to the drawings by characters of reference there is shown a rectangular cabinet of conventional construction, having a top 10, bottom 12, end faces 14, and a back 16. The front of the cabinet has a three-sided frame 18, with a cross, top piece 20.

The individual, slide trays each run in a guide channel at the bottom, and a grooved guide at the top, the bottom support being through a front roller carried by the guide channel, and supporting the tray, and a rear roller carried by the tray and running in the channel, as will be described in detail, hereinafter.

The guide channel 22 is fixed to the bottom 12, and runs from front to rear thereof, as seen in FIGURE 3. The cross-sectional form of the guide channel 22 is shown in FIGURE 9, wherein it is seen to be generally in the form of a right angle, with a side wall 24 journaling a roller 25 at the front end, and a bottom flange 26, with upright ribs 28 and 30 forming a channel guide track for a similar roller 32 journaled on the lower horizontal frame member or arm 34 of the tray framework, presently to be described.

The several sliding trays, one of which is shown partially withdrawn in FIGURE 1, each comprise an open framework of extruded aluminum in a variety of shapes, suited to various functions, as will be explained. In this

framework, all sides are channel-form, and in the particular embodiment shown, the horizontal members are not only doubly channeled sidewise, but also channeled on both their upper and lower sides. The three horizontal arms of the framework are shown in section in adjacent FIGURES 6, 8 and 9, wherein it is seen that middle arm 36 (FIGURE 6), and upper arm 38 (FIGURE 6), and upper arm 38 (FIGURE 8) are identical, each in the form of a double H, with center partition, or septum, 40, three depending walls 42, 44, 46, equal in depth, and three upright walls 48, 50, 52, equal in height, and of a height less than the depth of the depending walls, and aligned with the respective, depending walls. Depending from cross piece 40, on each side of center walls 44, 50 are a pair of split cylinders 54, adapted to receive fastening screws 56, by which the rear, vertical, frame channel 58, and the front, vertical, frame channel 60 are secured in the tray assembly.

The lowermost, horizontal frame member 34 is also in the general form of a double H, with three, upper walls 62, 64, 66 of the same height as walls 48, 50, 52, but having depending legs of three different depths, with a short skirt 68, aligned with and sized to clear the upright wall 24 of channel guide 22, a middle skirt 70 of medium size, adapted to extend between rollers 26 and 32, and a longest skirt 72, which journals the roller 32. The septum 40 of member 34 also has the split tubes 54 on its under side, to receive fastening screws 56. One of these (to the left in FIGURE 9) rides on the fixed roller 26.

The jacketed records are all indicated by the same numeral, 74. As seen in several figures of the drawings, these records are deposited within the aligned sets of channels of the horizontal H members. This reveals the reason for the use of relatively shallow upper walls or skirts on the several H members, for in removing, the record is lifted into the deep, inverted channel enclosing its top edge, until its lower edge clears the rails 48–52, or 62–66, and can therefore be removed, as illustrated in FIGURE 11.

As a convenience in operating the slide trays, or drawers, they are provided on their front faces, with hand grips 76. Index tab mounts 78 may also be conveniently provided on the outer edge faces of the drawers.

The top guide for each tray comprises a depending, plastic plug 80, having a medial groove or slot 82, in which the central upright rib 50 of the top H member 38 engages. At full withdrawal of the tray, the back, vertical channel 58 engages behind plug 80 as a stop. As seen in FIGURE 8, the plugs 80 may be manufactured in pairs, on a common base 84, and these secured to the top piece 20 by wood screws 86. A cushioning sheet 88 is provided on the back wall of the cabinet, to absorb the shock of the trays, in closing.

It will thus be seen that I have provided a compact, yet simple and smooth-working and reliable record storage rack in accordance with the objects above set forth.

While a certain, preferred embodiment has been shown and described, various modifications will be apparent, in the light of this disclosure, and the invention should not, therefore, be deemed as limited, except insofar as shall appear from the spirit and scope of the appended claims.

I claim:

1. A storage rack for phonograph records or the like, comprising a rectangular cabinet having a top wall and a bottom wall, and a plurality of vertically-disposed trays arranged for sliding movement into and out of said cabinet, a guide rail on the bottom of the cabinet for each said trays, said rail having an upwardly-open channel track and an upstanding flange along one edge, each tray comprising a rectangular framework having front and

rear members and an upper, a lower, and an intermediate record-retaining member, each extending horizontally between said front and rear members, each of generally double H-shape in cross-section, a roller journaled on said upstanding flange at the front thereof and arranged to support the underside of a tray at one side of the central depending web of said lower retaining member and a second roller journaled on said lower retaining member at its rear end and arranged to run on said guide rail and disposed on the opposite side of said central depending web of said lower retaining member.

2. A storage rack as set forth in claim 1 and in which a member having a downwardly-open channel is provided on the underside of the top of the cabinet for each tray and slidably-receives the upwardly-extending central web of the upper retaining member of said tray.

3. A storage rack as set forth in claim 1 and in which the depth of the downwardly-open channels of the upper double H-shaped member is greater than the upwardly-open channels of the intermediate double H-shaped member and the downwardly-open channels of the intermediate double H-shaped member are greater than the upwardly-open channels of the lower double H-shaped member.

4. A storage rack as set forth in claim 1 and in which the cabinet and a tray have cooperating stop means limiting movement of the tray outwardly of the cabinet.

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