

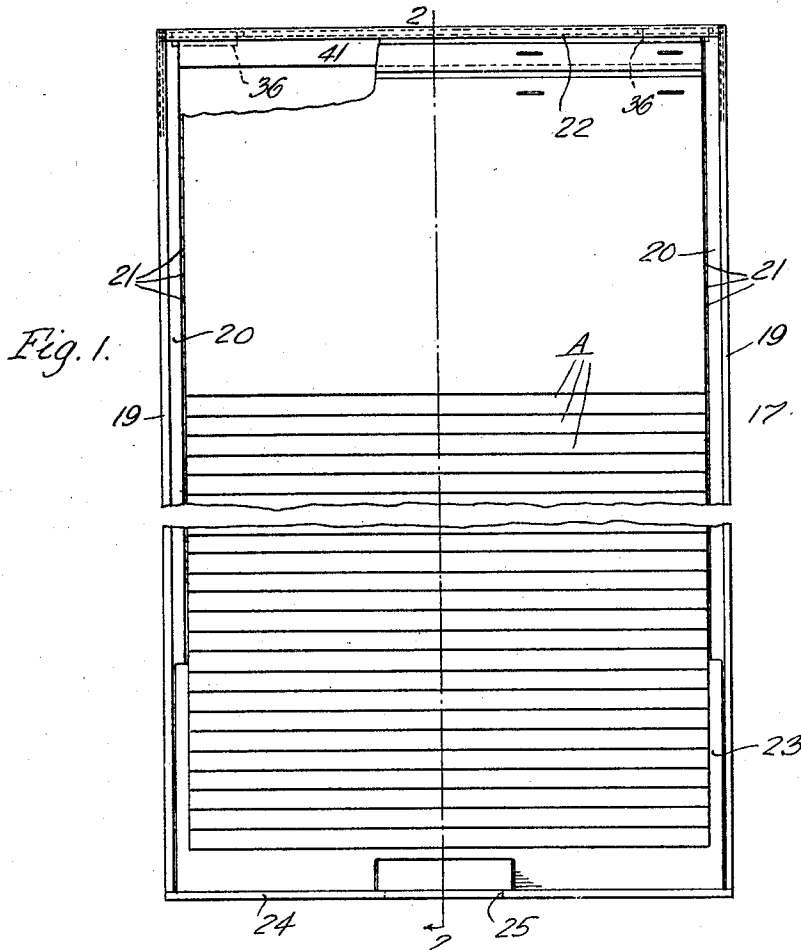
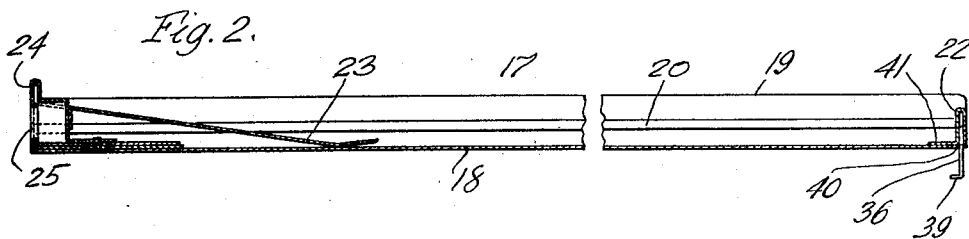
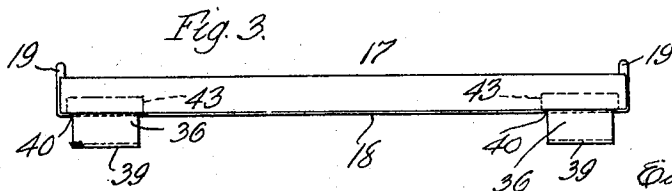
March 4, 1930.

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1,749,208

RECORD DEVICE

Original Filed July 3, 1924 2 Sheets-Sheet 1



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2 Sheets-Sheet 2

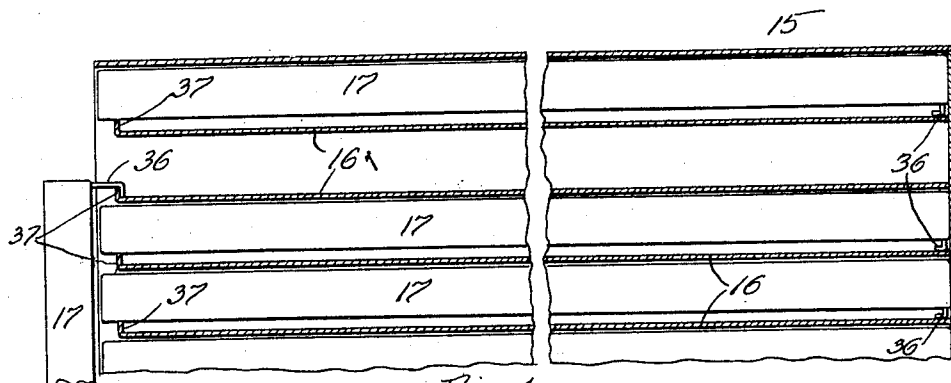


Fig. 4.

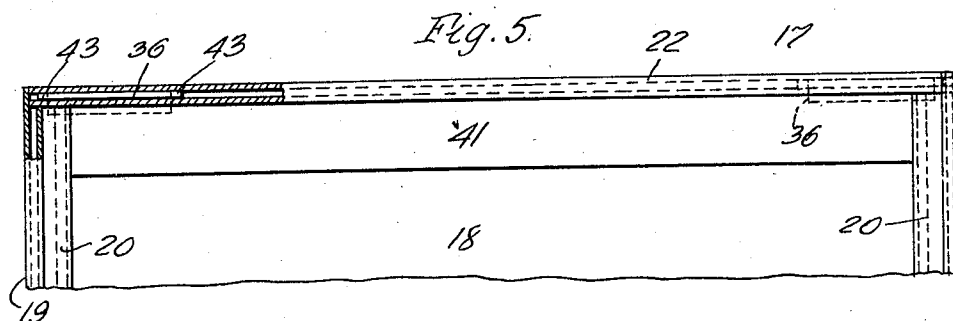


Fig. 5.

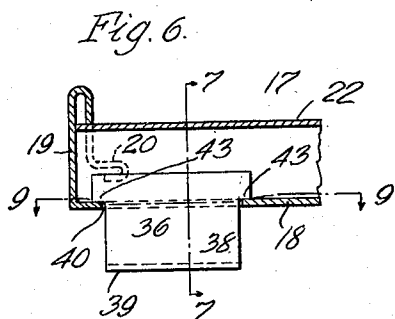


Fig. 6.

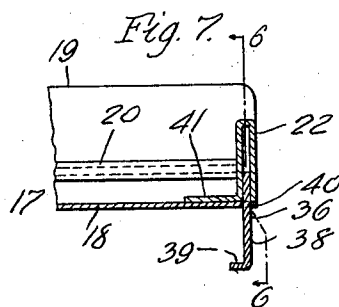


Fig. 7.

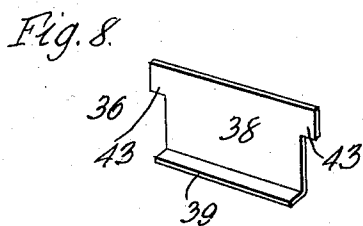


Fig. 8.

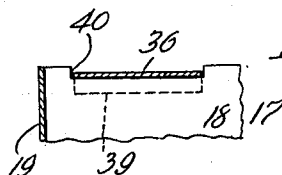


Fig. 9.

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UNITED STATES PATENT OFFICE

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RECORD DEVICE

Original application filed July 3, 1924, Serial No. 724,061. Divided and this application filed December 30, 1925. Serial No. 78,355.

This invention relates to card index or record devices comprising index or record cabinets and trays or slides therefor.

The invention is particularly applicable to that type of cabinet in which there is provided a plurality of movable horizontal slides or trays adapted to support a series of cards or other record bearing members disposed flatwise in overlapping nested relation. The series of cards are engaged at one end of the tray by a movable follower plate which compresses the nested cards and forces them against a back stop or wall at the other end of the tray.

In certain of these devices, the trays or slides have been provided at one end with hinged tail pieces having fixed hooks or projections adapted to engage complementary hooks or projections on parts of the cabinet, whereby when the trays are partially withdrawn from the cabinet, the trays will be suspended in depending positions at the front of the cabinet by the engagement of the tray hooks with said projections on the cabinet. The present application is a division of my copending application for Letters Patent, Serial No. 724,061, filed July 3, 1924.

The objects of the present invention are to provide in a card index device of the character described, improved and simplified means for suspending the trays or slides at the front of the cabinet when withdrawn therefrom, so as to do away with the relatively expensive hinged tail pieces heretofore used; also to construct the tray-suspending means so that when the tray is in the cabinet, said means will be partially concealed within the tray, and will form a support for the rear end of the tray, such that the tray bottom will be held out of engagement with the supporting partition or shelf of the cabinet; also to construct the supporting means in the form of a movable hook to function as just stated, and to engage with the hooks or projections on the cabinet so as to be extended out of the tray and support and releasably hold the tray in connection with the cabinet as the tray moves from the horizontal to its depending, substantially vertical position; also to provide a tray having an improved and strong

rear wall construction adapted to house the movable hooks or tray-suspension means, and also to improve record devices of this kind in the other respects hereinafter set forth and claimed.

In the accompanying drawings:

Fig. 1 is a plan view, partly broken away, of the improved index bearing tray or slide and the improved tray-suspending means embodying the invention.

Fig. 2 is a fragmentary, longitudinal, sectional elevation thereof, on line 2—2, Fig. 1.

Fig. 3 is an elevation of the rear end of the tray or slide.

Fig. 4 is a fragmentary, longitudinal section of a cabinet constructed to house the improved trays and support them in the inner and outer positions, showing one of the trays in suspended position.

Fig. 5 is a fragmentary plan view, partly in section, of the rear end of one of the trays on an enlarged scale.

Fig. 6 is a fragmentary, transverse section thereof, on line 6—6, Fig. 7.

Fig. 7 is a fragmentary, longitudinal section thereof, on line 7—7, Fig. 6.

Fig. 8 is a perspective view of one of the tray-suspending hooks, detached.

Fig. 9 is a horizontal section, on line 9—9, Fig. 6.

Referring to Fig. 4 of the drawings, 15 designates a cabinet having horizontal shelves or partitions 16, so spaced that each shelf supports a tray or slide 17 movable in and out of the cabinet. Each tray carries a series of index cards A arranged in overlapping, nested arrangement disposed substantially flatwise on the bottom wall 18 of the tray.

Each tray 17, see Fig. 2, is preferably provided with a rear stop portion 22 or end wall, against which an end card of the series abuts, the cards being pressed towards this wall and maintained in the overlapping, nested relation by a follower or compressor member 23 of any suitable kind, Figs. 1 and 2, which engages the opposite or front end of the card series. The tray is further provided with side walls 19 having overhanging, longitudinal flanges 20 spaced from the bottom 18 of the tray and adapted to engage tongues or

projections 21 on the cards to releasably maintain them in connection with and guide them in their longitudinal movements on the tray. The front ends of the walls 19 are connected by a transverse front wall 24, apertured at 25 to enable the tray to be moved into and out of the cabinet.

The general organization of the cabinet 15 and trays 17 above described is well known in the art, and of itself forms no part of the present invention except as hereinafter pointed out and claimed.

The body of the tray 17 is preferably of substantially rigid construction, and in accordance with the invention, means are provided for releasably suspending the tray outside of the cabinet 15, so that the cards can be readily worked upon. These means permit the tray to project a sufficient distance outside of the cabinet to hang substantially vertically, and at the same time to remain connected to the cabinet, and are so constructed as to take up very little room when the tray is in the cabinet.

For this purpose, the tray is provided with one or more extensible or movable hooks 36, (two being shown in the drawings) which are adapted to engage suitable hooked or projecting parts 37 on the shelf. These hooks comprise upright body portions 38 and offset hooked lower ends 39, and the hooks are preferably adapted to be loosely confined in the rear stops or end wall 22 of the tray with the hook portions 39 projecting out through apertures 40 in the tray bottom, facing forwardly, see Figs. 6 and 7. The rear wall 22 is preferably formed of a sheet metal stamping bent up as shown in Fig. 2 and having a flange 41 adapted to be spot welded or otherwise secured to the tray bottom 18. The hollow upright portion of the wall extends across the tray and is secured to the ends of the side walls 19. The apertures 40 can be conveniently formed by notching out the rear edge of the tray bottom 18 and then closing the open sides of the notches by means of the bottom edge of the back portion of the hollow rear wall 22, see Figs. 7 and 9.

The height of the rear wall is such that the top connecting portion thereof will engage the top edge of the hooks 36 so as to position the bottoms or hooked ends 39 thereof at a short distance below the tray bottom, so that these portions 39 support the rear part of the tray out of contact with the partition 16, immediately below the tray, while the front part of the tray rests on the hooked part 37 of the partition which extends upwardly and not only provides a rest for the front end of the tray when in the cabinet, but also supports the tray body in its sliding movements, and when the tray is pulled out, the hooks 36 engage the hooked parts 37 and are partially withdrawn from the tray as shown in Fig. 4, thus permitting

the tray to be releasably suspended as described.

In such position, the tray may be detached and removed from the cabinet by lifting it upwardly and disengaging the cooperating hooks. The hooks are preferably formed with offset shoulders or stops 43 which engage the tray bottom and prevent the hooks from being disconnected from the tray.

By this construction, substantial supporting means are provided for suspending the trays outside of the cabinet, which means nevertheless occupy but little space in the cabinet by reason of their ability to slide within the trays, as shown.

I claim as my invention:—

1. In a record device, the combination with a slide support and a slide movable into and out of said slide support, said slide having a substantially rigid body portion, of a hollow end wall on said slide, a hook shiftably connected to said body portion and having a portion thereof movably supported within said hollow wall, a part on said slide support adapted to engage said hook as said slide is withdrawn from said support to releasably connect said slide to said support, and said hook being adapted to shift as said slide is withdrawn to project a greater distance out of said hollow wall to permit said slide to be suspended by said hook and said hook-engaging part outside of said support.

2. In a record device, the combination with a slide support and a slide movable into and out of said slide support, said slide having a substantially rigid body portion, of a hollow end wall on said slide, a hook shiftably connected to said body portion and having a portion thereof movably supported within said hollow wall, a part on said hollow wall for limiting the upward movement of the hook, a part on said slide support adapted to engage said hook as said slide is withdrawn from said support to releasably connect said slide to said support, said hook being adapted to shift as said slide is withdrawn to project a greater distance out of said hollow wall to permit said slide to be suspended by said hook and said hook-engaging part outside of said support, and said hook having a stop engageable with a part of said tray body for limiting its outward movement in said hollow wall.

3. In a record device, the combination with a slide support and a record bearing slide movable into and out of said slide support, of a hook member connected adjacent one end of said slide and movable within fixed limits at right angles to said slide, and a hook on said slide support, said slide being adapted to be supported at one end by said hook member and intermediate the ends of said slide by said support hook when said slide is moved into and out of said support, said hook member being adapted to engage

said support hook in the extreme outer position of said slide so as to detachably connect said slide to said support and permit said slide to swing downwardly relatively to said support.

4. In a record device, the combination with a slide support, and a substantially rigid slide member movable into and out of said support, of an element movably mounted on said slide member having a hook portion on one end, and a part fixed on said slide support for cooperation with the hook portion of said element to support said slide member in extended position out of said support, said hook portion being movable away from said slide member in the extended position thereof to permit the free end of said slide member to drop below the plane of support.

5. In a record device, the combination with a cabinet provided with a plurality of slide members formed to support a series of record devices in predetermined arrangement thereon, said slide members being longitudinally movable into and out of said cabinet, of hook members having shanks with hooks on one end, the opposite ends of said shanks being slidable laterally in guideways formed in said slide members, and cooperating parts on said cabinet for engaging said hooks and extending said shanks from said slide members when the slide members are pulled out of said cabinet, said shanks being adapted to slide in said guideways to an unextended position to occupy a minimum of space in the cabinet when the slide members are returned to the cabinet.

6. In a record device, the combination with a slide support and a slide movable into and out of said slide support, of a hook member formed of a shank having a hook on one end, the opposite end of said shank being slidable laterally in said slide and extensible therefrom, and a part on said slide support for engaging said hook as said slide is withdrawn from said support and to maintain said slide spaced apart from said support, said shank being adapted to slide into extended position as the slide is withdrawn from said support whereby said slide may be suspended by said hook member and the engaging part on said slide support, substantially vertically outside of said slide support.

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