Aug. 22, 1950 J. H. BRINKER 2,519,632

VISIBLE RECORD TRAY CARRIER

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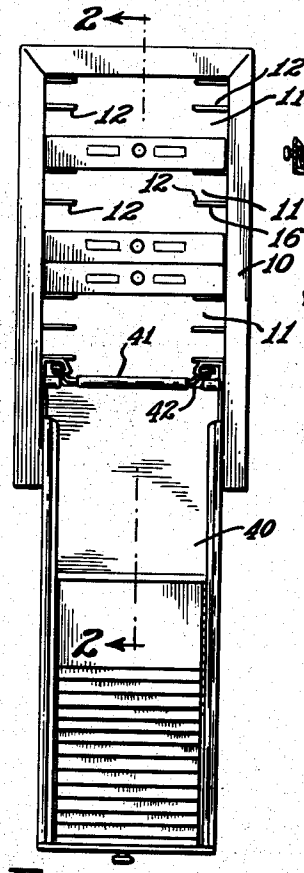


FIG. 1.

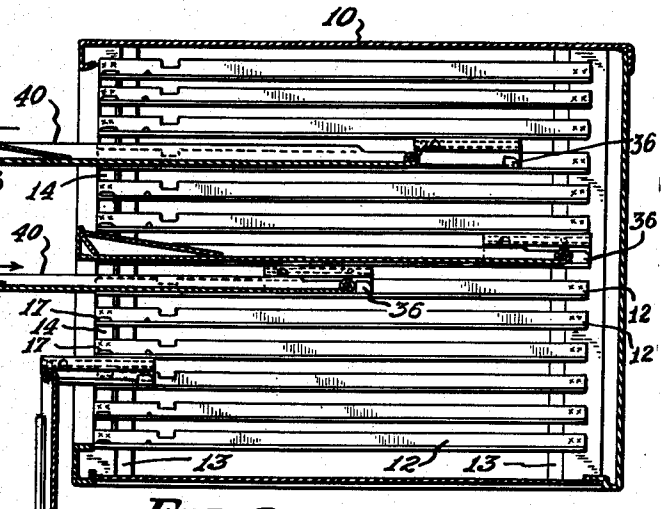


FIG. 2.

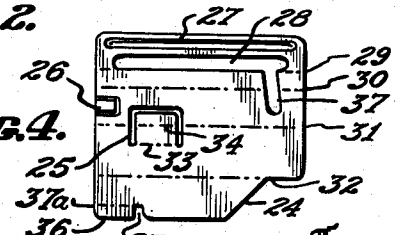


FIG. 4.

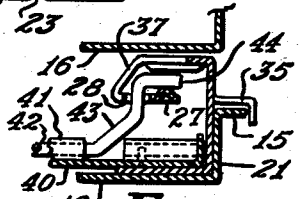


FIG. 5.

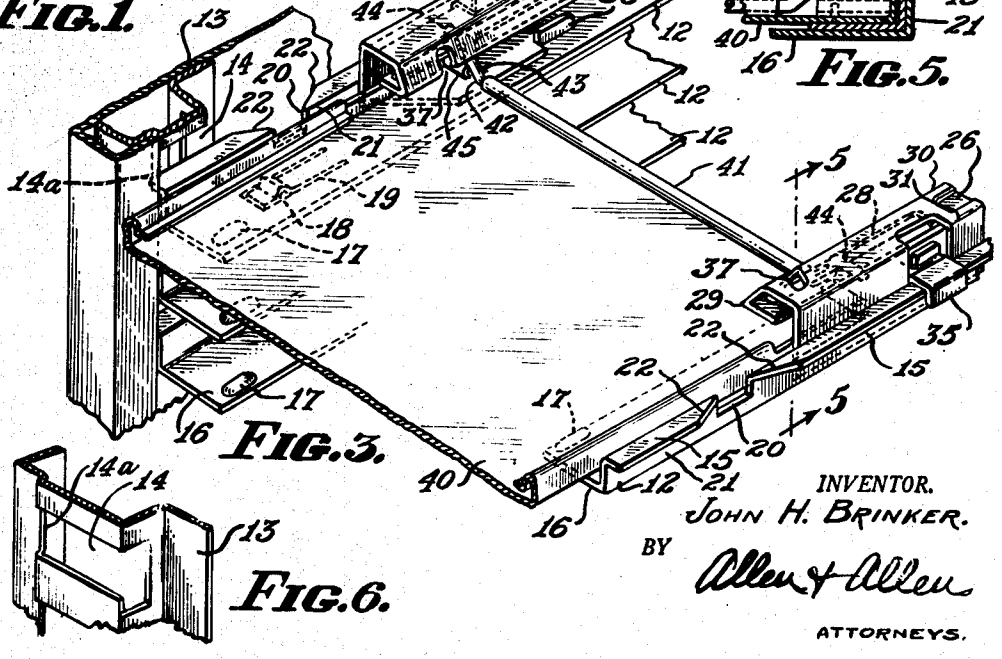


FIG. 3.

FIG. 6.

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VISIBLE RECORD TRAY CARRIER

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4 Claims. (Cl. 45—2)

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This invention relates to visible record tray carriers for use in connection with visible record tray cabinets.

Visible record systems of various types are now on the market in which the visible record trays are mounted in different ways for ready access. This particular invention has to do with a cabinet type of visible record system wherein the visible record trays are disposed in a cabinet in the manner of drawers which can be pulled out and tilted downward when it is desired to examine the cards.

It is an object of my present invention to provide carriers for visible record trays to which the trays themselves may be attached, which carriers may slide on runners in the cabinet and may extend out from the front of the cabinet so that when a tray is fully withdrawn, it may hang down vertically clear of the front of the cabinet. It is another object of my invention to provide such carriers which are extremely simple in construction and which can easily be assembled to the cabinet and disassembled therefrom.

It is a further object of my invention to provide a hanger for the tray by means of which the tray may be suspended from the carriers and to provide means whereby the tray may quickly and easily be removed from the carriers but whereby the tray cannot be accidentally removed from the carriers.

These and various other objects of my invention which will be pointed out more in detail hereinafter or which will appear to one skilled in the art upon reading these specifications, I accomplish by that certain construction and arrangement of parts of which I shall now describe the exemplary embodiment.

Reference is made to the drawings forming a part hereof and in which:

Fig. 1 is a front elevational view of a cabinet with one of the trays withdrawn and hanging down vertically.

Fig. 2 is a cross sectional view of the same taken on a line 2—2 of Fig. 1.

Fig. 3 is a fragmentary perspective view showing a corner of the cabinet and showing how the carriers and tray cooperate therewith.

Fig. 4 is a plan view of a blank from which one of the carriers is made.

Fig. 5 is a cross sectional view on an enlarged scale taken on line 5—5 of Fig. 3.

Fig. 6 is a fragmentary perspective of one of the vertical front frame members.

Briefly in the practice of my invention I provide a cabinet having a series of runners therein on both sides. Pairs of carriers are provided which are adapted to ride on the runners. These carriers have sliding movement from front to back the entire length of the cabinet, and stop means are provided so that at their extreme forward position they extend somewhat beyond the front face of the cabinet. The visible record trays are provided with hangers, which engage pairs of the carriers and have pivotal longitudinal movement with respect to the carriers.

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Referring more particularly to the drawings, a cabinet of conventional design is indicated at 10 and is provided with a number of visible record tray spaces, indicated generally at 11. The spaces 11 are constituted by pairs of runners indicated generally at 12, which are secured to frame members 13 in the cabinet. The runners are generally Z-shaped in cross section and the frame members 13 are slotted at intervals, as indicated at 14 to accept the flanges 15 of the various runners. The runners themselves are identical, except for the fact that there are rights and lefts for the two sides of the cabinet. In the portion 16 of the runners, there are provided raised buttons 17, which serve a purpose, which will be described hereinafter. Likewise in the portion 16 of each runner, there is provided a spring element 18, which may be accomplished by the cutting of a U-shaped slot 19 and then striking up the element 18 therefrom, so that it projects above the plane of the portion 16. The function of the element will be described hereinafter. Also, adjacent the front of each runner, there is provided a cut-out portion 20 in the vertical limb 21 of the runner, and the flange 15 is cut away from the opening 20 as indicated at 22. The function of this structure will be clear as the description proceeds.

The carriers themselves will now be described in detail. These carriers are provided in rights and lefts and each pair of carriers, except for the reversal of position, is identical in most respects, and may be made from a blank indicated generally in Fig. 4, which blank is generally rectangular in configuration and is provided with a notch 23, a beveled portion 24, a U-shaped slot 25, an indentation 26, a stiffening rib 27, and a long slot 28. This blank will be bent on the lines 29, 30, 31, and 32 to erect it to the form shown in cross section in Fig. 5. The portion within the U-slot 25 will be bent upwardly at a right angle from the base of the slot on the line 33 and then bent again at a right angle on the line 34 to provide the arm indicated at 35 in Fig. 5 engaging over the flange 15 of the runner. The portion

36 is bent up at a right angle on the line 37a to provide a stop for the hanger as will be described in more detail hereinafter. In both the right and left hanger, there will be a slot communicating with the slot 28, but the slot indicated at 37 in Fig. 4 is the slot for the right hand carrier. The slot for the left hand carrier will not extend beyond the bend line 30, so that the left hand carrier will have only a vertically partial slot communicating with the slot 28, whereas the right hand carrier will have communicated with the vertical slot, a horizontal slot disposed at an angle, as best seen in Fig. 3.

The carriers are assembled to the runners by placing them on the runners in a position where the arm 35 is opposite the cut out portion 20. The carrier can then be pushed home with the portion 35, passing through the opening 20 to bring the arm 35 beyond the flange 15. When the carrier is in position on the runner, it is held against vertical movement upward by the portion 16 of the next upper runner, and its weight is supported on its own portion 16, and it is held against lateral movement by the arm 35 extending over the flange 15. The carriers can easily be removed by sliding them toward the front of the cabinet until the portion 35 is opposite the opening 20 and then sliding them toward the center of the cabinet.

The visible record trays are indicated generally at 40 and may be of any conventional construction, except that at their rear or upper ends, they are provided with the rolled edge 41 embracing the hanger 42. The hanger 42 is essentially a rod having a major straight portion and portions bent upwardly therefrom as at 43 and terminal portions 44 parallel to the major portions. The hanger is free to rotate within the rolled edge 41.

The assembly of the hanger to the carriers is accomplished as follows: assuming that the carriers only have been assembled to the cabinet as described hereinabove, and it is desired to assemble to the carriers a visible record tray having the hanger described, the two carriers are brought toward the front end of the cabinet and the left hand portion 44 of the hanger is inserted through the slot 45 of the left hand carrier, so that the portion 44 rests on the strengthening bead 27 with the upturned portion 43 passing through the slot 28. The visible record tray is then rotated clockwise, as seen in Fig. 3, to the point where the right hand end 44 of the hanger can enter the angular slot 37. When the right hand portion 44 is passed through the slot 37 and the tray is straightened out, the right hand portion 44 will rest upon the bead 27 of the right hand carrier with its portion 43 passing through the slot 28 of the right hand carrier. As the drawer is pushed in, the hanger will ride along the slots 28 of the two carriers to its rearmost position, as seen in drawer A of Fig. 2. In this position the rolled edge portions 45, which are coaxial with the rolled edge portion 41, will abut the member 36, as shown in Fig. 2. When the drawer is all the way in, the front portion of the drawer is supported on the elements 17, which extend above the plane of the member 16, an amount equal to the thickness of the bottom of the carrier.

When the drawer is pulled out, the hanger first rides along the slots 28 to the front to the position shown in drawer B in Fig. 2, until the carriers have been pulled out to the position shown with drawer C in Fig. 2, where they extend somewhat beyond the front face of the cabinet. In this position then the drawer 40 can hang down vertically from the carriers. The limit of forward movement of the carriers is established by engagement of the arms 35 of the carriers with the edges 14a of the front corner frame members 13.

The members 18 hereinabove described bear against the underside of the carriers to hold them slightly when the carriers are in their foremost position.

The function of the depressions 26 can now be understood; if one visible record tray has been withdrawn to the position indicated at C in Fig. 2, and it is desired to withdraw the next upper tray, when the carrier contacts the member 18 to depress it, it will be depressed into the depression 26 of the next lower carrier. Thus, the only function of the depression 26 is to permit a drawer immediately above a fully opened drawer to be withdrawn.

It will be noted that by virtue of the construction, the parts will not normally or accidentally come apart, because in order to disassemble a drawer and hanger from its carriers the drawer must first be fully withdrawn and then cocked in a clockwise direction, as seen in Fig. 3, until the slot 37 and the hanger are aligned. The right hand end of the hanger can then be raised and removed through the slot 37 and then the left hand end can be removed through the slot 35. Likewise, the carriers themselves cannot be removed from the runners until the drawer has been removed, as just described. The assembly and disassembly of the parts is very simple and yet proof against accidental dislodgment.

It will be clear that numerous modifications may be made without departing fhom the spirit of my invention and I therefore do not intend to limit myself, except as pointed out in the claims which follow.

Having now fully described my invention, what I claim as new and desire to secure by Letters Patent is:

1. In a visible record cabinet having a visible record tray provided with a hanger, a pair of carriers arranged for sliding movement in said cabinet and engaging said hanger, each of said carriers being of channel-like cross-section with one of the arms of said channel constituting the top of said carrier, said top arm having a return bend providing a member parallel to said top but spaced therebelow by a spacing member, said parallel member having a slot running substantially the length of said carrier and said spacing member having a slot communicating with said first mentioned slot adjacent the front end of said carrier, said hanger comprising a rod having crank-like configurations at each end, said crank-like portions passing through said slots in said parallel members and the ends of said portions resting on said parallel members.

2. The structure of claim 1 in which said parallel portions are provided with longitudinal stiffening ribs providing supporting surfaces for the ends of said hanger.

3. The structure claimed in claim 1 in which one of said pair of carriers is provided with a slot in said top arm, the slot in said top arm being disposed at an angle less than a right angle to the axis of said carrier whereby said hanger may be removed from said carriers by swinging said tray laterally until the axis of said hanger is aligned with said angular slot, and lifting said hanger upwardly through said angular slot.

4. The structure of claim 1 in which depressible friction elements are provided in said runners adjacent the front ends thereof, and in which said carriers are provided with depressions in their top surfaces to accept said depressible friction elements whereby to permit more than one drawer to be fully withdrawn at the same time.

JOHN H. BRINKER.

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