Dec. 1, 1964 J. C. CONDON 3,159,280

FILE-STORING UNITS FOR SHELVES

Filed Dec. 5, 1961 2 Sheets-Sheet 1

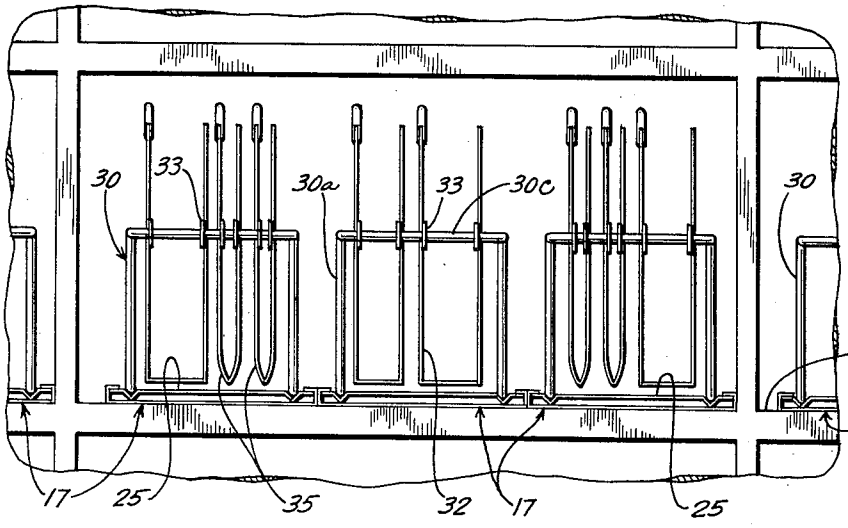


FIG. 1

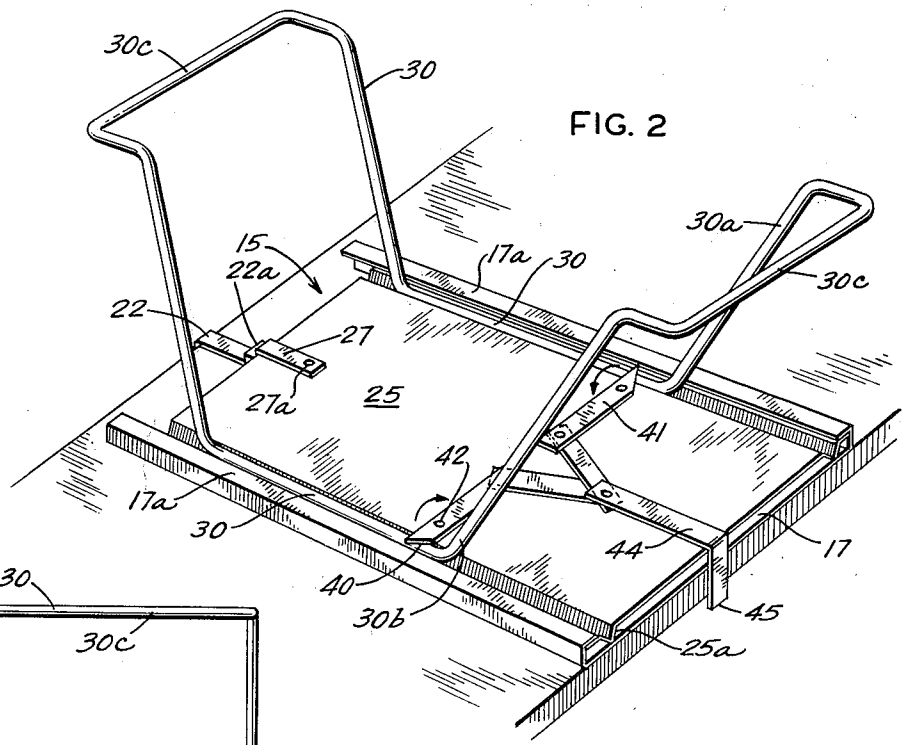


FIG. 2

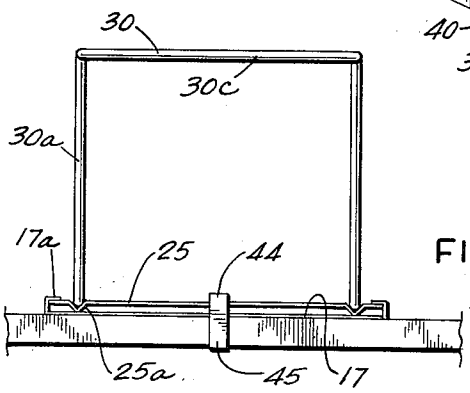


FIG. 3

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FILE-STORING UNITS FOR SHELVES

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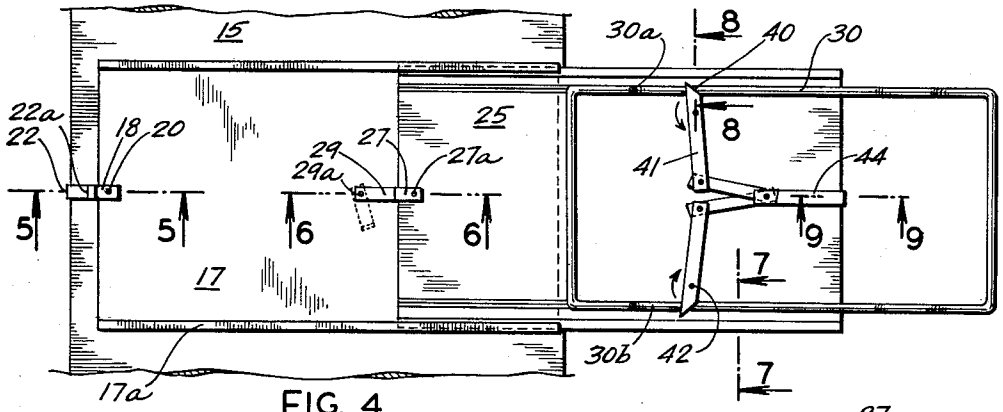


FIG. 4

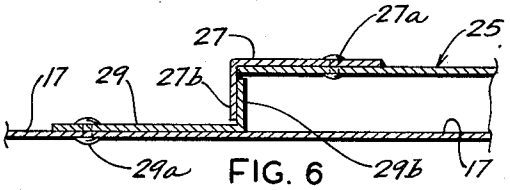


FIG. 6

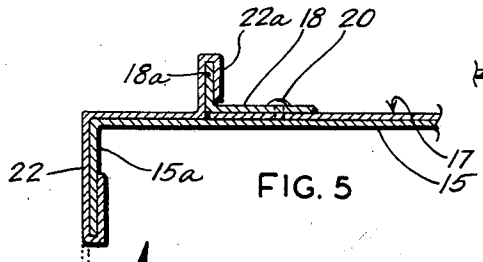


FIG. 5

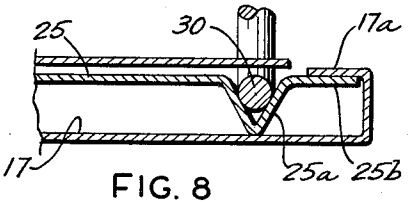


FIG. 8

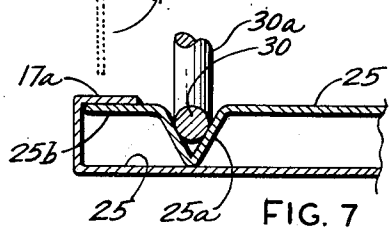


FIG. 7

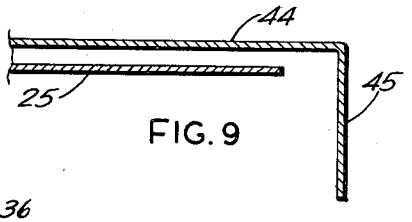


FIG. 9

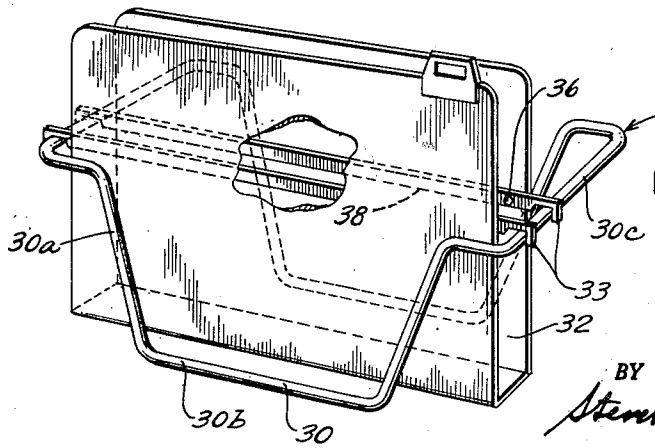


FIG. 10

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FILE-STORING UNITS FOR SHELVES

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11 Claims. (Cl. 211—10)

My invention relates to facilities for keeping records, such as file folders, envelopes, cards or pockets. Ordinarily, items of this character are deposited in a file drawer in alphabetical or classified order; and they are identified by index tabs at the top. Often file folders are thin or flexible, and tend to sag or curl back from leaning against each other, so that reference to them becomes difficult. Follower blocks are used at times to counteract the sagging tendency, but they require adjustment from time to time when folders are changed, added or removed. Further, most drawer files are quite deep—usually, in excess of two feet—so that considerable frontal clearance is required when a drawer is pulled out for access to file folders in the rear. In fact, even more frontal room is required in this event in order to accommodate the clerk standing in front of the drawer. Thus, considerable working space is necessary in connection with drawer-type files. Finally, heavy file drawers require considerable effort to open and close them.

Shelves are also employed for the storage of record material, and do not require the frontal clearance necessary for file drawers. However, access to file material on shelves can only be had to the front edges thereof, and a file folder must be drawn away from the shelf if inspection, opening or handling of contents from the top is necessary; also, index tabs are not applied to project from the top of folders stored on shelves even if there is room for them, since it would be awkward and probably too dark to read them. Index tabs are therefore applied to project from the front edges of the file folders, where they are subject to bending from fingering, or breaking off from impact by passing persons or objects.

Further, in respect to shelf-supported file folders, proper reference to or handling of their contents is only possible by drawing folders out individually or in small numbers from the shelf, and placing them on a separate support or a desk for full access, since little of the contents can be seen when a folder is drawn only partially from the shelf. Group adjustment of file contents for greater accessibility has been tried with an off-center container mounted in a cabinet. When closed the cabinet resembles a solid-door bookcase. When the cabinet is open the container may be rocked forwardly to partially expose its contents for access. This allows approach from the top to some extent, but the installation is expensive and therefore not as popular as the shelf type of storage facility.

The above discussion points to the desirability of a shelf file installation whose contents may be viewed or handled as readily as those in a file drawer, yet without requiring the depth of a file drawer or the frontal space for opening the same and accommodating the person who uses it. To provide such an installation is the main object of the present invention.

A further object is to combine the large lateral capacity of a shelf with the drawer-like convenience of a series of adapters for groups of the file material, each adapter being extensible in forward direction for approach from the side where direct view of the complete file material and top index units thereof may be had.

A still further object is to provide a carrier for file material incident to each adapter, with means for removing the carrier for reference or use on a desk or support away from the shelf.

Another object is to provide a simple and convenient locking device between the carriers and adapters.

A better understanding of the invention may be had by reference to the accompanying drawings, in which

FIG. 1 is a front elevation of the novel file keeping installation in a shelf compartment;

FIG. 2 is a perspective view of an adapter and a file folder carrier relating to it;

FIG. 3 is a front elevation of the adapter and carrier;

FIG. 4 is a top plan view, showing the adapter and the carrier extended to locate the latter in front of the shelf;

FIGS. 5 to 9 are sectional views taken on the lines 5—5 to 9—9 of FIG. 4; and

FIG. 10 is a perspective view of a carrier by itself and containing a file-group receptacle.

Referring specifically to the drawings, 15 denotes the bottom of a typical wall shelf compartment. The modern practice is to make this type of shelf out of steel. Such a shelf may be of ordinary depth and suitable for storing business-size file folders in laterally-grouped relation; or, the shelf may be deeper for use in a law office or library to store legal size file folders in the same manner.

The purpose of a file-group adapter for a given shelf compartment is to make it possible to move the file-group as a unit in forward direction, so that the file folders in it will be completely outside the shelf area and conveniently visible and accessible from the side and the top instead of the front. The adapter provided for this purpose is mostly of sheet metal and formed with a base 17 designed to be mounted on the shelf bottom 15. Thus, FIG. 1 shows three adapters located side-by-side in a shelf compartment.

Simple means are provided for attaching the base 17 to the shelf bottom 15 at the rear. A metal strip 18 is attached to the base at its rear edge by a rivet 20, or by welding, the strip having an upbend 18*a*. A second, longer strip is made with a hook 22*a* at one end and designed to frictionally receive the upbend 18*a*. The strip 22 is inserted behind the rear downflange 15*a* of the shelf to the extent indicated by dotted lines in FIG. 5. The depending part is then turned up to hook over the downflange as denoted by full lines. FIG. 2 shows this fastening centrally located, but two such fastenings may be applied, suitably spaced apart. In either case the base 17, being positively engaged and meeting the wall behind the shelf, will have little or no tendency to shift out of line or laterally.

A sheet metal slide 25 is designed as the support for the file-group carrier, and is mounted over the base 17 to be movable as an extension of the same. The slide is mostly raised from the base to avoid friction, and is pressed with V-channel ribs 25*a* which rest on the base. The side portions 25*b* of the slide travel in channel retainers 17*a* bent in upward direction from the base 17. For limiting its movements the slide has a strip 27 attached at 27*a* over its rear end portion, as seen in FIG. 6, the strip having a downbend 27*b* behind the slide. The upbend 18*a* may form a rear travel limit for the slide when met by the downbend 27*b*; and a strip 29 attached to the base by a loose rivet 29*a*, and having an upbend 29*b*, serves as the forward limit for the downbend 27*b* when the slide has been extended to project with its greater portion from the shelf as shown in FIG. 4. When the slide, which is open at both ends, is first inserted over the base 17, the strip 29 is swung aside to clear the downbend 27*b* as indicated by dotted lines in FIG. 4, and then swung back to serve as the said limit.

The file-group carrier 30 is a wire rack or receptacle whose parallel sides are designed to seat in the V-channels of the slide ribs 25*a*, as indicated in FIG. 3. The sides 30*a* of the carrier rise from bottom corners 30*b* to

form front and rear cross-bars 30*c*. File-folder receptacles 32 may be hung between the cross-bars by means of end hooks 33, as shown in FIG. 10; and FIG. 1. indicates that individual file holders 35 may also have the hooks 33 for hanging in the carrier as shown. In either case, the hooks are hinged at 36 to bars 38 secured in the inner sides of the receptacle 32 or file folders 35, so that the hooks may be folded in—in downward direction—when the receptacles or file folders are removed from the carrier 30 in order not to project or catch on other articles when set or laid on a desk or other support away from the shelf. As suspended, the receptacles or file folders are free to be slid apart when file contents are to be handled, and do not have the bottom friction and sagging contended with on a shelf or drawer bottom. Also, the present carrier constitutes a simple facility for mounting file material on a shelf in suspended position, whereas other means to do this would have to be quite involved in construction and application.

The carrier 30 is normally positioned over the rear part of the slide as seen in FIG. 2; and this figure also shows that the adapter seats fully on the shelf in such event. When access is desired to the contents of the carrier, the frontal bar 30*c* of the latter is drawn to advance the carrier over the slide 25. During this action the bottom bars 30 of the carrier slide in the V-channels of the slide ribs 25*a*, and are retained therein by the tips 40 of a toggle device 41 pivoted on rivets 42 on the slide. The control bar 44 of the toggle device extends forwardly to terminate with a downbend 45 in front of the slide, as seen in the right-hand portion of FIG. 2.

The forward travel of the carrier is checked in relation to the slide when the rear bottom corners 30*b* of the carrier meet the tips 40 of the toggle device, since these cannot pivot from the pressure of the said corners because of the front end of the slide forms a bar to the downbend 45. Thus, the continued forward pull on the carrier causes it to push the slide out of the shelf to the considerable extent seen in FIG. 4. At this point the slide is stopped by the impact of the downbend 27*b* on the upbend 29*b*, as seen in FIG. 6. However, the carrier has by this time assumed a position fully outside the shelf, so that its contents are fully exposed. Files and their top index tabs are now accessible as in a drawer, but from the side of the extended carrier instead of from the front thereof, and where the attendant is out of the way of persons passing in front of the shelf. In case extended use of the file material is necessary, causing the attendant to become tired from standing, the downbend 45 of the toggle device may be drawn a short distance to the position indicated in FIG. 9. This action swings the tips 40 of the toggle device off the bottom bars of the carrier as indicated by curved arrows in FIG. 2, so that the carrier may be lifted off the adapter and set on a desk where copying, making entries, transferring and other work on the file contents may be done with more comfort.

It is now apparent that the novel file storage facility combines the compactness of a shelf with the convenience of a drawer by adapting drawer-like extension units to the shelf. Ordinarily, only one file folder or a group of file folders are consulted at one time. But, in the case of the conventional file drawer, all the contents must be moved when the drawer is opened or closed, this task requiring considerable effort and operating space. In the present case only the desired folder group is selected and easily drawn to bring the desired folder to an exposed position. A drawer-type facility is thus had from the side, while leaving ample room in front for passing persons or other equipment.

I claim:

1. A file-material storing unit for shelves comprising a base attachable on a shelf, a slide operable over the base from a position in the shelf space to extend forwardly from the shelf, and a file-material carrier mounted on the slide and movable to extend forwardly from the same to a position completely outside of the shelf for full access to said file-material from the top and sides, wherein the shelf has a downbend from the rear edge, and hook means extend from the base and straddling said downbend from below.

2. A file-material storing unit for shelves comprising a base attachable on a shelf, a slide operable over the base from a position in the shelf space to extend forwardly from the shelf, and a file-material carrier mounted on the slide and movable to extend forwardly from the same to a position completely outside of the shelf for full access to said file-material from the top and sides, wherein the shelf has a downbend from the rear edge, an upward projection carried by the base at the rear, an angle bar over the rear portion of the shelf and having a lower hook at one end engaging said downbend from below, and an upper hook extended from the other end of the angle bar and receiving said projection retentively.

3. A file-material storing unit for shelves comprising a base attachable on a shelf, a slide operable over the base from a position in the shelf space to extend forwardly from the shelf, and a file-material carrier mounted on the slide and movable to extend forwardly from the same to a position completely outside of the shelf for full access to said file-material from the top and sides, the slide having surface grooves betwen front and rear, and the carrier having bottom bars slidable in the grooves.

4. A file-material storing unit for shelves comprising a base attachable on a shelf, a slide operable over the base from a position in the shelf space to extend forwardly from the shelf, and a file-material carrier mounted on the slide and movable to extend forwardly from the same to a position completely outside of the shelf for full access to said file-material from the top and sides, the slide being of sheet material pressed with bottom ribs between front and rear to define grooves on the upper side, and the carrier having bottom bars slidable in the grooves, said ribs causing a minimum of friction between the base and the slide during the movements of the latter.

5. A file-material storing unit for shelves comprising a base attachable on a shelf, a slide operable over the base from a position in the shelf space to extend forwardly from the shelf, and a file-material carrier mounted on the slide and movable to extend forwardly from the same to a position completely outside of the shelf for full access to said file-material from the top and sides, the slide having surface grooves between front and rear, the carrier having bottom bars slidable in the grooves, and retainers preventing the bottom bars from rising out of the grooves.

6. A file-material storing unit for shelves comprising a base attachable on a shelf, a slide operable over the base from a position in the shelf space to extend forwardly from the shelf, and a file-material carrier mounted on the slide and movable to extend forwardly from the same to a position completely outside of the shelf for full access to said file-material from the top and sides, the slide having surface grooves between front and rear, the carrier having bottom bars slidable in the grooves, retainers preventing the bottom bars from rising out of the grooves, and means to withdraw the retainers for the release of the bottom bars and removal of the carrier from the slide.

7. A file-material storing unit for shelves comprising a base attachable on a shelf, a slide operable over the base from a position in the shelf space to extend forwardly from the shelf, and a file-material carrier mounted on the slide and movable to extend forwardly from the same to a position completely outside of the shelf for full access to said file-material from the top and sides, the slide having surface grooves between front and rear, the carrier having bottom bars slidable in the grooves, retainers preventing the bottom bars from rising out of the grooves, and a toggle device operable from the front

of the slide to withdraw the retainers for the release of the bottom bars and removal of the carrier from the slide.

8. A file-material storing unit for shelves comprising a base attachable on a shelf, a slide operable over the base from a position in the shelf space to extend forwardly from the shelf, and a file-material carrier mounted on the slide and movable to extend forwardly from the same to a position completely outside of the shelf for full access to said file-material from the top and sides, the slide having surface grooves between front and rear, the carrier having bottom bars slidable in the grooves, retainers preventing the bottom bars from rising out of the grooves, the carrier having rear end pieces opposite said retainers, and the latter forming stops for said end pieces to limit the forward movement of the carrier when it has reached said position.

9. A facility for the storage of file folder groups in laterally assembled order on shelves, comprising a base for at least one of such groups attachable on a shelf, a slide operable over the base from a position in the shelf space to extend forwardly from the shelf, and a carrier for such groups mounted on the slide and movable to extend forwardly from the same to a position placing said groups completely outside of the shelf for full reference from the sides of the carrier to the face and top portions of the file folders and access to the interiors thereof, the slide having surface grooves between front and rear and the carrier being a one-piece wire rack formed with bottom bars retained and slidable in said grooves, end bars rising from the bottom bars, and front and rear cross-bars at the top of said end bars and endwise of said file folder groups, and means carried by the latter to suspend them freely from the cross-bars and facilitate the gathering and separation of the file folder groups along the same.

10. A file-material storing unit for shelves comprising a base attachable on a shelf, a slide operable over the base from a position in the shelf space to extend forwardly from the shelf, a file-material carrier mounted on the slide and movable to extend forwardly from the same to a position completely outside of the shelf for full access to said file-material from the top and sides, and means retaining the carrier on the slide, such means operable to free the carrier for removal from the slide.

11. A file-material storing unit for shelves comprising a base attachable on a shelf, a slide operable over the base from a position in the shelf space to extend forwardly from the shelf, a file-material carrier mounted on the slide and movable to extend forwardly from the same to a position completely outside of the shelf for full access to said file-material from the top and sides, and means retaining the carrier on the slide, such means operable from the front of the slide to free the carrier for removal from the slide.

References Cited in the file of this patent

UNITED STATES PATENTS

810,909	Catlin	Jan. 30, 1906
1,398,611	Van Alstyn	Nov. 29, 1921
2,098,198	Sindelar	Nov. 2, 1937
2,329,201	Jonas	Sept. 14, 1943