

Nov. 13, 1962

P. A. ROSENQUIST ET AL

3,063,773

COLLAPSIBLE DESK OR CARRELL STRUCTURE

Filed Oct. 21, 1959

Fig. 1

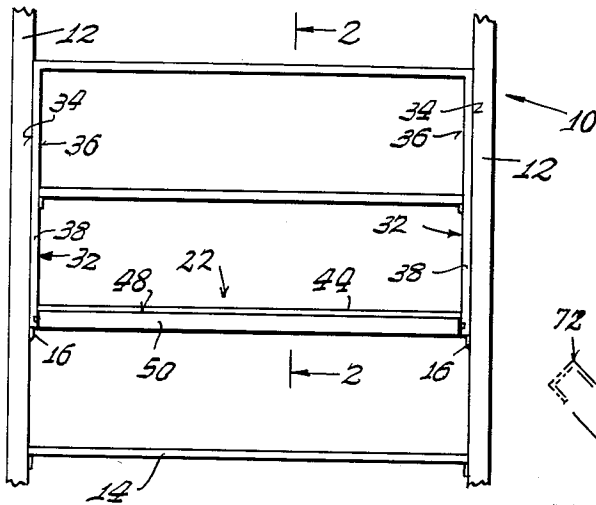


Fig. 2

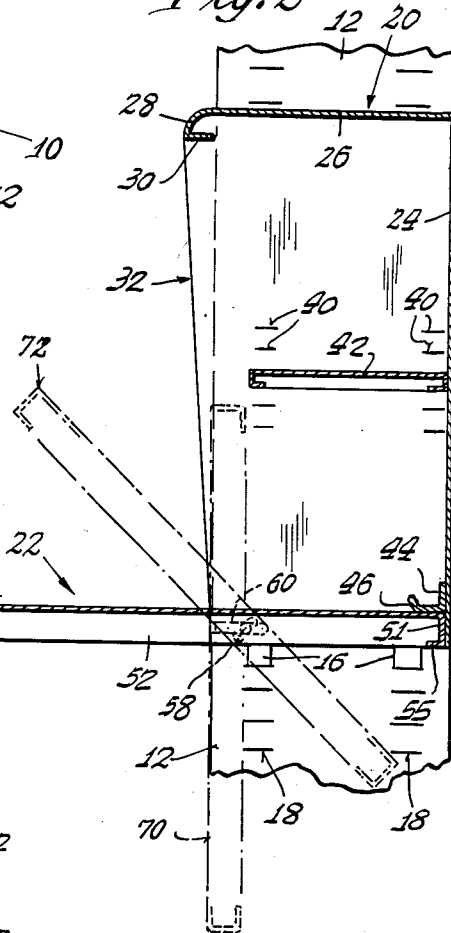


Fig. 3

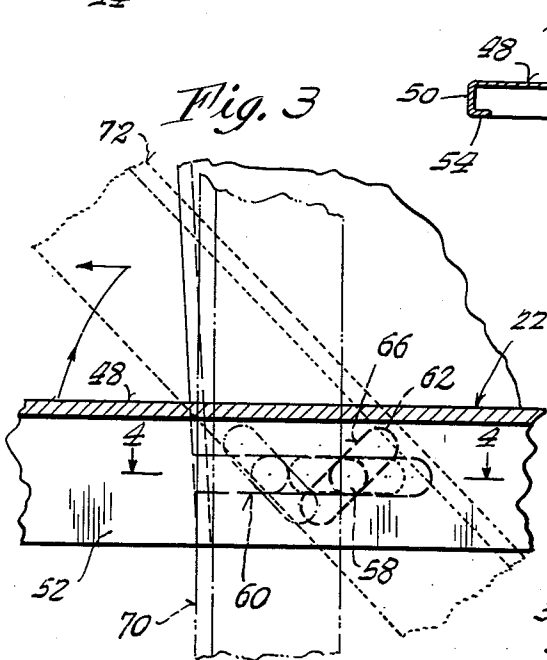


Fig. 5

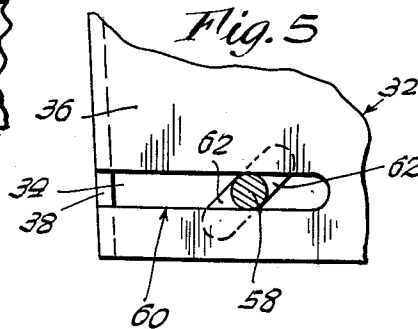
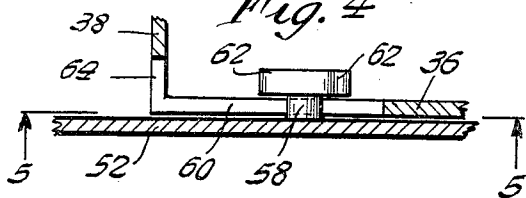


Fig. 4



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1

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COLLAPSIBLE DESK OR CARRELL STRUCTURE

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Filed Oct. 21, 1959, Ser. No. 847,784

4 Claims. (Cl. 312—313)

This invention relates to collapsible desk or secretary structures wherein a desk or writing area is provided and so arranged that it may be folded out of the way when not in use.

The invention especially involves a combination collapsible desk and book stall of the type provided in libraries to enable a carrell or cubicle to be set up adjoining or interposed between the book stalls or stacks already in use.

An object of the invention is to provide a novel and improved collapsible desk or secretary unit in combination with and adapted to be supported or carried by the side walls of existing book stalls or similar supporting uprights, which unit may be readily, quickly substituted for several superposed shelves of the book stall, to convert the space occupied by said shelves into a study or writing cubicle or carrell. However, the invention is not wholly limited to such combination, since portions of the described embodiments may have utility apart from their use in conjunction with book stalls.

Another object of the invention is to provide an improved collapsible type carrell or desk unit as above set forth, which by means of existing standard shelf brackets may be mounted in a book stall to replace several shelves.

A further object of the invention is to provide an improved carrell or desk structure adapted to be incorporated in a book stall, wherein the desk or desk surface may be easily folded to an out-of-the-way position wherein it does not project from the front edges of the stall supports or uprights.

A still further object of the invention is to provide an improved carrell structure as above characterized, wherein the foldable deck may be entirely, easily and quickly removed in the event that this should be desired.

A feature of the invention resides in the provision of an improved carrell or collapsible desk unit as outlined, which is sturdy and reliable in use, and is constituted of relatively few, simple parts or components which may be economically fabricated and produced, especially utilizing sheet metal.

Another feature of the invention resides in the provision of a collapsible desk or carrell unit for use with a book stall, wherein the unit upon removal may be provided with legs so as to constitute a portable type carrell.

Still another object of the invention is to provide a unitary, collapsible carrell or desk structure adaptable for use in place of several shelves of a book stall, wherein a portion of the said structure may be utilized as one or several shelves, thereby to minimize the amount of space actually taken up by the carrell which is not available for the storing of books.

Other features and advantages will hereinafter appear.

In the drawings accompanying this specification, similar characters of reference are used to designate like components throughout the several views, in which:

FIG. 1 is a front elevational view on a greatly reduced scale, of an improved carrell or collapsible desk unit mounted between two side uprights of a book stall or shelving unit such as is commonly provided in libraries.

FIG. 2 is a fragmentary vertical sectional view, somewhat enlarged, taken on the line 2—2 of FIG. 1.

FIG. 3 is a fragmentary view partially in vertical section and partially in elevation, showing enlarged some-

2

what further a portion of the device illustrated in FIG. 2.

FIG. 4 is a fragmentary horizontal section taken on the line 4—4 of FIG. 3.

FIG. 5 is a fragmentary vertical sectional view, taken on the line 5—5 of FIG. 4.

Referring first to FIGS. 1 and 2, a conventional type of book stall 10 is shown, having spaced uprights 12 in the form of side walls between which shelves may be supported, as for example the shelf 14 illustrated in the figures. Usual or conventional type shelf brackets 16 may be utilized to support the shelf 14, the said brackets being carried by slotted portions 18 of the uprights 12 in the usual manner.

In accordance with the invention there is provided a novel collapsible carrell or desk unit adapted to be mounted on the uprights 12 in place of several of the shelves 14 which have first been removed from the said uprights. The said carrell unit comprises an enclosure or hood 20 and a foldable desk or platform 22 adapted to constitute a writing area or desk top, the said platform being hingedly connected to the lower portion of the hood 20 in a unique manner whereby it may be either supported horizontally when in use, or else swung downward to an out-of-the-way position when not in use, or else entirely removed from the hood, whichever arrangement may be desired. The width of the hood 20 is such that it may be snugly fitted between the uprights 12, and the said structure is so arranged and constituted that it may be supported on the uprights by means of the usual or conventional shelf brackets, such as the brackets 16 shown in FIG. 2. To accommodate the carrell unit preferably three of the book shelves are first removed from the book stall, and in FIG. 1 a remaining book shelf 14 is illustrated, disposed below the carrell unit which has been installed to replace the three removed shelves.

The hood 20 may comprise a back wall 24 and a top wall 26 extending forward from the upper edge of the back wall 24 and terminating in a rounded front depending flange 28 having an intumed or rearwardly extended edge 30. The hood 20 may further comprise side walls 32 each of which may be constituted of two metal sheets 34 and 36 disposed in closely spaced relation and connected along their front vertical edges by a marginal facing strip 38 which is preferably constituted as an integral part of one of the sheets 34, 36.

The sheets 34, 36 of the side walls 32 may be joined to the rear wall 24 and top wall 26 in any suitable manner, as by welding, spot welding, securing together flanged edges, etc.

The inner sheets 36 of the side walls are provided with slotted portions 40 by which a shelf 42 may be supported within the hood 20, said shelf being adjustable for height by shifting its mounting means to effect engagement with different slotted portions located at different levels.

At the rear of the hood 20, extending horizontally across the back wall 24 thereof and spaced a slight distance above the lowermost edge of the back wall there is provided a ledge member 44 which may be generally of angular cross section as shown in FIG. 2, having an up-turned front edge 46 whereby the member may constitute a pencil and pen rest. Further, the ledge member 44 is arranged to act as an abutable cleat for engagement by the desk or platform 22 to support the latter in a horizontal, operative position. This is clearly shown in FIG. 2.

The desk or platform 22 may be formed in various ways. As shown it is constituted of sheet metal, having a top writing surface or area 48, having front and rear depending flanges 50, 51 respectively, and having depending side flanges 52, thereby to provide a marginal framework tending to stiffen and reinforce the top portion 48. As shown in FIG. 2, the front and rear de-

pending flanges 50, 51 may have inturned bottom edges 54, 55 respectively, as a finishing touch to further strengthen the platform and make it more convenient to handle and operate.

By the present invention, the platform 22 is uniquely hinged as disclosed in detail in FIGS. 4 and 5. The platform 22 is provided with hinge pins 58 at its side edges, which are arranged to extend into horizontal slots 60 disposed in the inner sheets 36 of the side walls of the hood 20. Further, the hinge pins 58 have oppositely extending projections or ears 62 disposed within the side walls 36 and constituting in effect flattened heads on the hinge pins. The width of the ears 62 is slightly less than the width of the slots 60, as seen in FIG. 5, thereby to enable the hinge pins to be inserted in and removed from the slots 60 when the ears are properly positioned. Also, the front facing strips 38 have cut-outs or openings 64 which meet and constitute continuations of the slots 60, whereby removal of the hinge pins 58 and ears 62 thereof forwardly in a direction of the side walls 36 is made possible upon proper positioning of the said ears.

Referring to FIGS. 2 and 3, the hinge pins 58 and ears 62 are disposed in a particular manner, with respect to the plane of the platform 22, the arrangement being such that the ears extend diagonally or at an acute angle with respect to the said plane. For example, referring to FIG. 3 the dotted outline indicated at 66 shows the positions of the ears 62 when the platform 22 is in the full line horizontal position indicated. For such position, the hinge pins 58 will be locked in the slots 60, 64, preventing the platform or deck from being removed from the hood 20.

Considering now FIG. 2, the pivotally mounted platform 22 may be releasably held in an operative horizontal position by bringing the rear edge of the platform under the edge member 44 and in engagement with said member and the back wall 24 of the hood. When it is desired to fold the deck or platform 22 out of the way, this may be easily and quickly accomplished by pulling the platform forward a slight distance as permitted by the slots 60, thereby to disengage the rear edge of the platform from the ledge member 44. The front portion of the platform may now be swung downward and backward with the rear portion swinging upward and forward, whereby the platform may assume a vertical position as indicated by the broken outline designated by the character 70. It will be seen that such vertical or folded position of the platform 22 disposes it out of the way and substantially in line with the front edges of the stall supports 12. When the occasion arises to again use the platform 22 it may be easily and quickly swung to its operative position by merely grasping the lower edge of the platform and swinging it upward while continuing to pull forward thereon. When the platform has been brought to a horizontal position it is then shifted horizontally backward to engage the rear edge with the ledge member 44, as shown in FIG. 2.

In accordance with the invention, the platform or deck 22 may be easily entirely removed from the hood 20, when this should be desired. In order to effect such removal, the platform 22 is swung upward from its horizontal position to the dotted line position 72 shown in FIG. 2. This position is also shown in broken outline in FIG. 3. The ears 62 of the hinge pins 58 are now aligned horizontally with the front portions 64 of the slots 60, whereupon a forward translational movement of the deck or platform 22 will enable the hinge pins to be entirely removed from the supporting slots 60, 64. The deck or platform 22 is now entirely free of the hood 20 and may be used or placed as desired.

In installing the carrell unit in the book stall initially, it is more convenient to attach the hood 20 to the side walls 12 while the platform 22 is detached from the hood. Upon this installation being completed, the plat-

form may be easily installed in the hood in a manner exactly opposite to the removal of the platform as explained above.

It will be noted from an inspection of FIG. 2, that after initial installation of the carrell unit, the space above the shelf 14 is available for the storage of books. Also, the top wall 26 of the carrell constitutes an additional shelf on which books may be placed and stored, in addition to the shelf 42 located within the hood 20.

It will now be understood from the foregoing that I have provided a novel and improved collapsible carrell or desk unit which may be easily and quickly incorporated in a book stall in place of several shelves which are removed. The carrell unit is simple in construction, economical to fabricate, and is sturdy and reliable in use. It provides a convenient place for reading or writing, and takes up a minimum of space in the book stall, enabling the maximum amount of area of said stall to be utilized in storing or holding books. The setting up and folding of the deck or platform may be easily and quickly effected, and does not require any special mechanical ability or skill. Where occasion demands it, the deck 22 may be entirely removed from the unit; normally when it is folded and out of use, it does not project beyond the front edges of the side supports 12 of the book stall. When the collapsible carrell unit is not used in conjunction with a book stall, the deck 22 may be provided with removable legs, whereby the unit constitutes a portable carrell or desk adapted to be supported on a floor surface.

Variations and modifications may be made within the scope of the claims, and portions of the improvements may be used without others.

We claim:

1. In combination, a book stall comprising a pair of spaced apart substantially flat side walls, a plurality of opposed shelf supporting means carried by each of said side walls at vertically spaced intervals thereon, a book shelf supported on some of said oppositely disposed supporting means, a carrell unit supported in said book stall in spaced relationship to said book shelf, said carrell unit being removably supported on another shelf supporting means between said side walls, said carrell unit including a pair of spaced apart double walled side panels and a back wall connected between said double walled side panels, each of said double walled side panels including an inner panel, a spaced outer panel and a front facing strip interconnecting said inner and outer panels, a horizontally extending ledge connected to said back wall, said ledge having an upturned front edge to define a trough adapted to serve as a pencil holder, a writing surface mounted between said double walled side panels and means for pivotally mounting said writing surface between the inner panels for rotation between a vertically disposed inoperative position and a horizontally disposed operative position whereby the rear portion of said writing surface abuts against said ledge to limit the movement of said writing surface and enables said writing surface to be releasably maintained in operative horizontal position, said pivoting means including a pin and slot connection, said connection being constructed so as to permit said writing surface to be rendered readily detachable from said double walled side panels.

2. In combination, a book stall comprising a pair of spaced apart substantially flat side walls, opposed shelf supporting means connected to each of said side walls, a carrell unit detachably connected in said book stall, said carrell unit being removably supported on said shelf supporting means, said carrell unit including a pair of spaced apart double walled side panels, a back panel interconnected between said panels, and a top panel connected to said back and side panels, each of said double walled side panels including an inner panel, an outer panel spaced therefrom, and a front facing strip interconnecting said inner and outer panels, a horizontal ledge connected to the rear panel, said ledge extending for-

5

wardly of said rear panel, a writing surface mounted between the spaced inner panels of said carrell unit adjacent the front edge thereof, means for pivotally mounting said writing surface to said panels for rotation between a vertically disposed inoperative position and a horizontally disposed operative position whereby the rear portion of said writing surface abuts against said ledge to limit the movement of said writing surface so that said writing surface is releasably maintained in its operative horizontal position, said pivoting means including opposed pins connected to the sides of said writing surface, and a cooperating horizontally disposed slot formed in the inner panels and connected front facing of each side panels of said carrell unit for receiving said pins, each of said pins having oppositely disposed laterally extending ears, said ears having a width less than that of the cooperating slot receiving the same, and said ears being angularly disposed with respect to the center line of the cooperating slot when said writing surface is disposed in both the operative and inoperative position so as to prevent unintentional disengagement of said writing surface from said side panels, and ears being horizontally disposed in alignment with said cooperating slot when said writing surface is disposed at an intermediate position between said operative and inoperative positions thereof for rendering said writing surface readily detachable.

3. In combination, a book stall comprising a pair of spaced apart substantially flat side walls, a plurality of opposed shelf supporting means connected to each of said side walls, said shelf supporting means being spaced at vertically spaced intervals on said side walls, a book shelf supported on some of said oppositely disposed shelf supporting means, a carrell unit detachably connected in said book stall in vertically spaced relationship to said book shelf, said carrell unit being removably supported on other shelf supporting means, said carrell unit including a pair of spaced apart double walled side panels, a back panel interconnected between said panels, and a top panel connected to said back and side panels, each of said double walled side panels including an inner panel, an outer panel spaced therefrom, and a front facing strip interconnecting said inner and outer panels, a horizontal ledge connected to the rear panel, said ledge extending forwardly of said rear panel and having an upturned front edge to define a trough adapted to serve as a pencil holder, a writing surface mounted between the spaced inner panels of said carrell unit adjacent the front edge thereof, means for pivotally mounting said writing surface to said panels for rotation between a vertically disposed inoperative position and a horizontally disposed operative position whereby the rear portion of said writing surface abuts against said ledge to limit the movement of said writing surface so that said writing surface is releasably maintained in its operative horizontal position, said pivoting means including opposed pins connected to the sides of said writing surface, and a cooperating horizontally disposed slot formed in the inner panels and connected front facing of each side panels of said carrell unit for receiving said pins, each of said pins having oppositely disposed laterally extending ears, said ears having a width less than that of the cooperating slot in said inner

6

panel, and said ears being angularly disposed with respect to the centerline of the cooperating slot when said writing surface is disposed in both the operative and inoperative position thereof so as to prevent unintentional disengagement of said writing surface from said side panels, and said ears being horizontally disposed in alignment with said slot when said writing surface is disposed at an intermediate position between said operative and inoperative positions thereof for rendering said writing surface readily detachable.

4. A carrell unit comprising a pair of spaced apart double walled side panels, a back panel interconnected between said panels, and a top panel connected to said back and side panels, each of said double walled side panels including an inner panel, an outer panel spaced therefrom, and a front facing strip interconnecting said inner and outer panels, a horizontal ledge connected to the rear panel, said ledge extending forwardly of said rear panel and having an upturned front edge to define a trough adapted to serve as a pencil holder, a writing surface mounted between the spaced inner panels of said unit adjacent the front end thereof, means for pivotally mounting said writing surface to said panels for rotation between a vertically disposed inoperative position and a horizontally disposed operative position whereby the rear portion of said writing surface abuts against said ledge to limit the movement of said writing surface so that said writing surface is releasably maintained in its operative horizontal position, said pivoting means including opposed pins connected to the sides of said writing surface, and a cooperating horizontally disposed slot formed in the inner panels and connected front facing of each side panels of said carrell unit for receiving said pins, each of said pins having oppositely disposed laterally extending ears, said ears having a width less than that of the cooperating slot in said inner panel, and said ears being angularly disposed with respect to the center line of the cooperating slot when said writing surface is disposed in both the operative and inoperative position thereof so as to prevent unintentional disengagement of said writing surface from said side panels, and said ears being horizontally disposed in alignment with said slot when said writing surface is disposed at an intermediate position between said operative and inoperative positions thereof for rendering said writing surface readily detachable.

References Cited in the file of this patent

UNITED STATES PATENTS

353,969	Roehm	Dec. 7, 1886
754,817	Schriefer	Mar. 15, 1904
781,060	Hanson	Jan. 31, 1905
843,719	Umberger	Feb. 12, 1907
858,572	Cannan	July 2, 1907
1,761,683	Ritchie	June 3, 1930
2,229,046	Carson	Jan. 21, 1941
2,277,618	Utter	Mar. 24, 1942
2,299,409	Rathburn	Oct. 20, 1942
2,315,927	Brack	Apr. 6, 1943

FOREIGN PATENTS

710,875	France	June 16, 1931
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