Sept. 22, 1970 L. G. PRIEST 3,529,879

MODULAR CONSTRUCTION FOR STORAGE CABINET

Filed Sept. 23, 1968 3 Sheets-Sheet 1

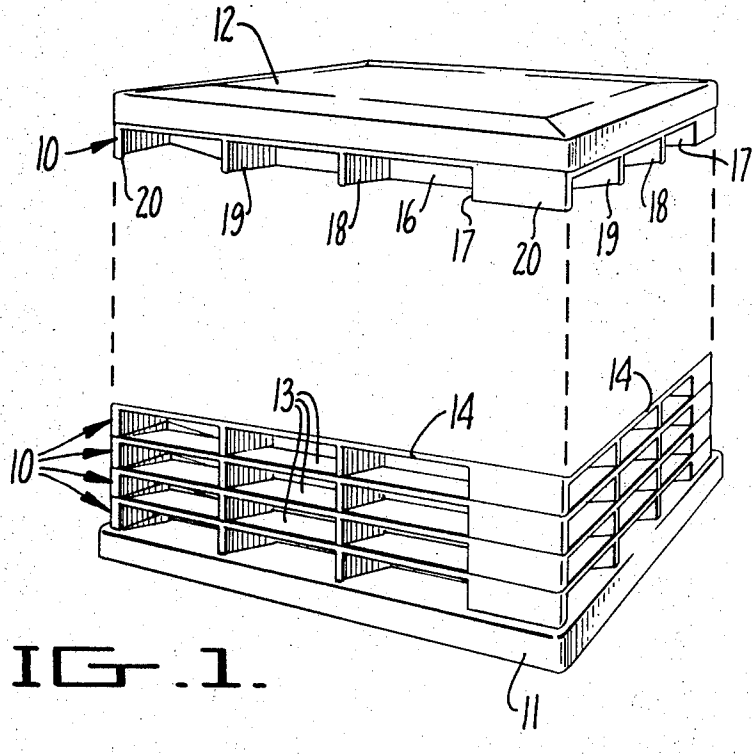


FIG. 1.

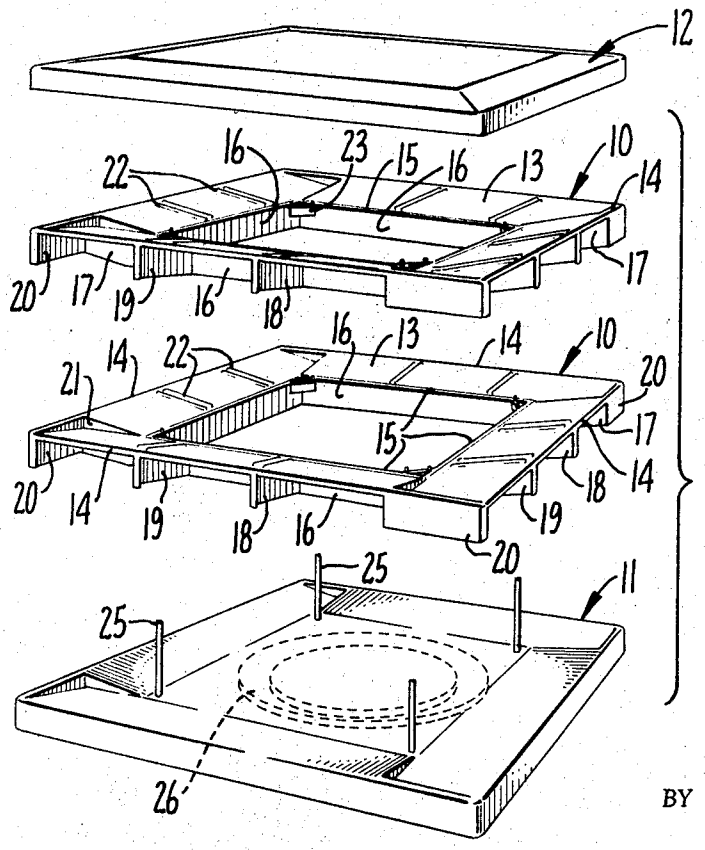


FIG. 2.

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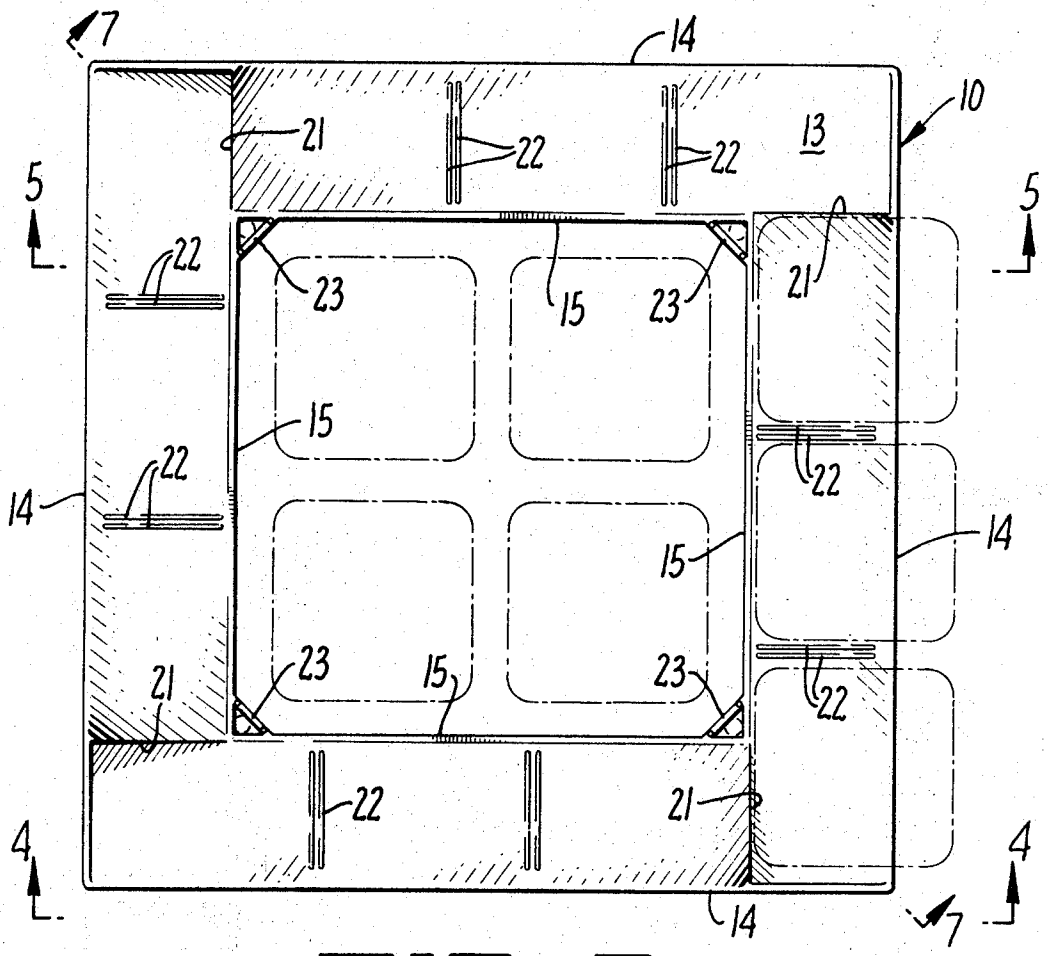


FIG. 3.

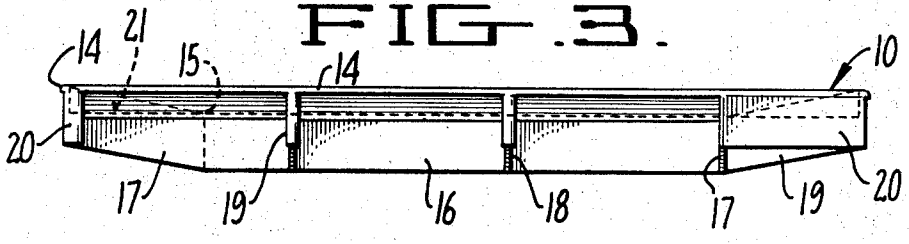


FIG. 4.

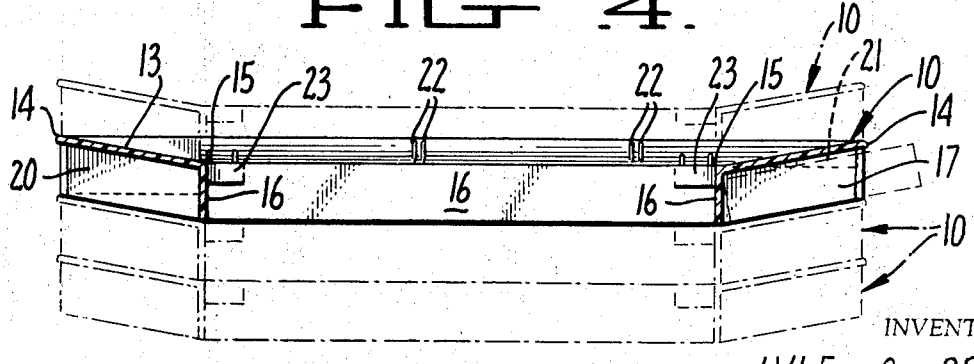


FIG. 5.

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MODULAR CONSTRUCTION FOR STORAGE CABINET

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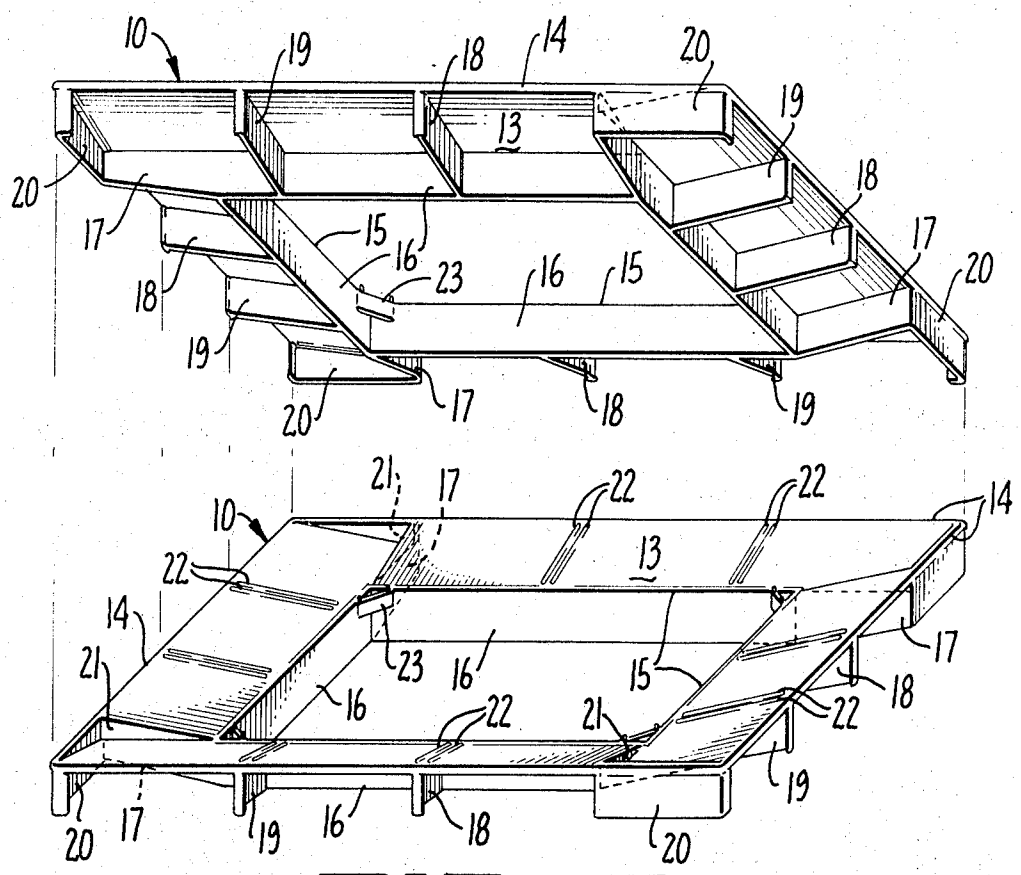


FIG. 6.

FIG. 7.

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MODULAR CONSTRUCTION FOR STORAGE CABINET

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ABSTRACT OF THE DISCLOSURE

A modular construction for a storage cabinet comprised of a plurality of tiered sectional dividers, each divider having rear and side barriers that project vertically from a panel having surfaces that extend from a peripheral edge and slope downward from front to back, the panels of adjacent dividers defining the top and bottom surfaces of a plurality of storage compartments separated by the rear and side barriers of at least one divider.

This invention relates to storage cabinets and more particularly to a modular construction for a cabinet to store film or tape cartridges.

In brief, the present invention contemplates a modular construction for a storage cabinet made up of a plurality of tiered sectional dividers, one divider being superposed upon another. Each divider is formed with rear and side barriers that project vertically from a panel having surfaces that extend from a peripheral edge and slope downward from front to back. The panels of two superposed dividers define the top and bottom surfaces, respectively, of a plurality of storage compartments, each compartment being separated by the rear and side barriers of the uppermost divider. Accordingly, placing several dividers one upon another creates a multi-tiered arrangement of storage compartments, the upper surface of each panel providing the supporting surface for a series of storage compartments that is covered and compartmentalized by the superposed divider above.

It is one object of the present invention to provide a modular construction for a storage cabinet of the kind described that may be economically manufactured and selectively assembled to provide multi-tiered sectional dividers of various heights.

Another object is to provide a modular cabinet construction of the kind described that is particularly useful in the storage of microfilm or tape cartridges.

Another object of the invention is to provide a modular construction for a storage cabinet that may be assembled from a plurality of divider units, each of identical construction.

A further object is to provide a modular construction for a cabinet of the kind described that may be assembled from modules that can be intermixed in a single file to form various sizes of storage compartments.

It is a further object of this invention to provide a modular cabinet construction of the kind described which can initially be formed of one capacity and then at a later time enlarged by the addition of other modules.

A still further object of the invention is to provide a modular construction for a cabinet comprised of modules or dividers formed of different colors which may be assembled to provide color coding of stored items such as film cartridges.

And yet another object is to provide a modular construction for a cartridge cabinet formed of a plurality of dividers, certain dividers having wall barriers of greater depth than other dividers but mateable therewith the assembled to provide storage compartments of different heights to accommodate different widths of cartridges.

Other objects of this invention will became apparent in view of the following detailed description and the accompanying drawings.

In the drawings forming a part of this application and in which like parts are identified by like reference numerals throughout the same,

FIG. 1 is a perspective view of a preferred embodiment of this invention in a modular cabinet construction;

FIG. 2 is an exploded perspective view of the top, bottom and two modular divider units forming part of the cabinet shown in FIG. 1;

FIG. 3 is a top plan view of the storage cabinet shown in FIG. 1 with the cover removed;

FIG. 4 is a side elevation of one of the dividers as viewed on lines 4—4 of FIG. 3;

FIG. 5 is a vertical section of one divider taken on lines 5—5 of FIG. 3, other dividers of the cabinet being shown in phantom;

FIG. 6 is a perspective view showing two divider panels superposed in spaced relation one above the other; and

FIG. 7 is a vertical, diagonal section taken on lines 7—7 of FIG. 3.

Referring to the drawings, there is illustrated a preferred embodiment of a modular storage cabinet essentially comprised of a plurality of dividers or modules **10** which may be superposed one upon the other. Such an assembly is supported upon a base frame **11**, the top divider **10** supporting a cover **12**.

It will be particularly noted that dividers **10** are identically formed, each comprising a ring-shaped panel **13** having upper and lower surfaces that extend from co-planar front edges **14** and slope downward from front to back, terminating in co-planar rear edges **15**. Each divider also includes a plurality of integrally formed barriers that project downwardly from the underside of panel **13**, the lower edges of said barriers resting upon the supporting surface of a subjacent divider and defining separate cartridge compartments. These barriers more particularly comprise a continuous rear or inner barrier **16** and side barriers **17**, **18**, **19** and **20**. Each side barrier **17** is an extension of one side of the continuous rear barriers **16** and serves as a portion of a rear wall for one compartment as well as one side barrier for the adjacent compartment on an adjacent side of the divider. Viewed as a side wall, each side barrier **17** is wholly formed on the undersurface of the panel but as an extension of the rear wall barrier it forms only a portion of one rear wall of one compartment. The other portion of the rear wall is comprised of a triangular section **21** which forms a transition between the sloped supporting surfaces on the subjacent panel. One such section is provided at each corner of the panel.

Each divider or module **10** further comprises a plurality of ribs **22** formed on the upper surfaces thereof and arranged thereon to receive the side barriers of a superposed adjacent divider. Ribs **22** serve to locate and position one divider relative to another.

Dividers **10** are also formed with integral bracing members **23**, one such member being formed in each corner of the continuous barrier **16**. These bracing members provide an opening that receives dowel members **24** or **25** to hold the dividers in alignment. Although a single dowel member may be used to align an entire stack of dividers, the use of both upper and lower dowel members, such as illustrated, allows changes to be made in the capacity of the cabinet by increasing or decreasing the number of modules. It should be noted, however, that because of the dished shape of the dividers (produced by the sloped supporting surfaces and ribs **22**), dividers **10** will tend to nest themselves and hold their alignment relative to other modules. The use of dowel members, therefore, simply adds to the rigidity of the structure and

makes it more difficult to unseat or shift one module relative to another.

In the preferred embodiment illustrated means is provided for rotating the cabinet as a whole to enhance access to any one compartment on any side of the cabinet structure. A relatively flat ball-bearing race **26** comprised of a pair of rings, one of which is secured to the bottom of the base **11**, has been found suitable for this purpose. The operation of such device is essentially the same as what is commonly known as a lazy susan.

Base **11** comprises a panel member **27** having a surface that is contoured to the same shape as the upper surfaces of panels **13**. Accordingly, the lower edges of rear barrier **16** and side barriers **17**, **18**, **19** and **20** mate in abutting relationship in essentially the same manner as one divider mates with another.

Various advantages and attributes are derived from cabinets formed in the manner described. For example, it will be apparent that the general configuration of the cabinet provides a plurality of storage compartments around a central core space. Such space, if desired, may be used as an overflow storage compartment for those tapes or cartridges less commonly utilized. Another advantage of the cabinet is that certain of the dividers may be formed with wall barriers of either greater or less depth than other dividers without affecting their mateable relationships. Accordingly, the cabinet may be made up with modules of different barrier depths to provide storage compartments for film cartridges of different widths. Dividers **10** may also be made with different colors, each color denoting a particular size of film cartridge or a relationship to certain subject matter.

Although a preferred embodiment of the invention has been illustrated and described, various modifications and changes may be resorted to without department from the spirit of the invention or the scope of the attached claims, and each of such modifications and changes is contemplated.

What is claimed is:

1. A modular construction for a storage cabinet comprising: a plurality of tiered sectional dividers, each divider having rear and side barriers that project vertically from a panel having surfaces that extend from a continuous peripheral front edge and slope downward from front to back, the panels of adjacent dividers defining the top and bottom surfaces of a plurality of storage compartments separated by the rear and side barriers of at least one divider; whereby placing one divider upon another forms a plurality of first storage compartments, the upper panel of two dividers providing the bottom supporting surface for a second series of storage compartments, the lower panel of the same two dividers providing the top surface for a third series of storage compartments.

2. The storage cabinet of claim **1**, said rear and side barriers of each divider projecting vertically from the underside of each panel, each side barrier having a front edge located near the peripheral edge of the divider and arranged in substantial parallelism with other side barriers, the rear edges of such side barriers being interconnected by a rear barrier.

3. The storage cabinet of claim **1**, a plurality of ribs

being provided on the surface of each panel opposite to said side barriers and located thereon to receive the side barriers of an adjacent divider.

4. The storage cabinet of claim **1**, and further comprising a cover having a shape corresponding to that of said dividers, said cover being supported upon the uppermost divider of a tiered arrangement, the panel of said uppermost divider providing the top surface for the uppermost tier of storage compartments.

5. The storage cabinet of claim **1**, and further comprising a base having a shape corresponding to that of said dividers and an upper supporting surface that slopes downward from front to back along each edge, said slope being complementary to the bottom edges of the rear and side barriers of each divider.

6. The storage cabinet of claim **5**, and means mounted on the underside of said base for rotatably supporting said base and a plurality of tiered sectional dividers.

7. The storage cabinet of claim **1**, each panel having a continuous peripheral edge lying in a common horizontal plane, one side barrier on each side of a panel being substantially rectangular, the upper edge thereof being contiguous with the continuous peripheral edge of the panel and having a lower edge abutting the continuous peripheral edge of the panel of an adjacent divider.

8. The storage cabinet of claim **1**, each panel having a stepped surface at each corner thereon forming a transition between sloped surfaces of adjacent storage compartments.

9. The storage cabinet of claim **8**, each rear barrier being comprised of a triangular portion extending between adjacent surfaces at one corner of the divider, each triangular portion forming a transition between sloped surfaces, the remainder portion of each barrier being formed on an adjacent panel.

10. The storage cabinet of claim **1**, each panel being generally ring-shaped and having inner and outer peripheral edges, each peripheral edge being continuous and lying in vertically spaced horizontal planes, the inner peripheral edge being in a plane below the outer peripheral edge, the space within said inner peripheral edge defining a central storage compartment.

References Cited

UNITED STATES PATENTS

465,621	12/1891	Westphal	312—202
503,306	8/1893	Bever	312—125 X
1,213,026	1/1917	Sande.	
2,994,440	8/1961	Catterall et al.	211—163
3,124,398	3/1964	Fuller et al.	312—198
3,170,741	2/1965	Richards	211—163 X
3,238,001	3/1966	Allen et al.	312—234.4 X
3,361,,508	1/1968	Chassevent	312—125 X
3,421,801	1/1969	Carpenter et al.	312—111

FOREIGN PATENTS

268,287	10/1929	Italy.

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312—283