Jan. 31, 1967 G. L. JONES 3,301,407

SHELF DIVIDERS

Filed Dec. 21, 1964 2 Sheets-Sheet 1

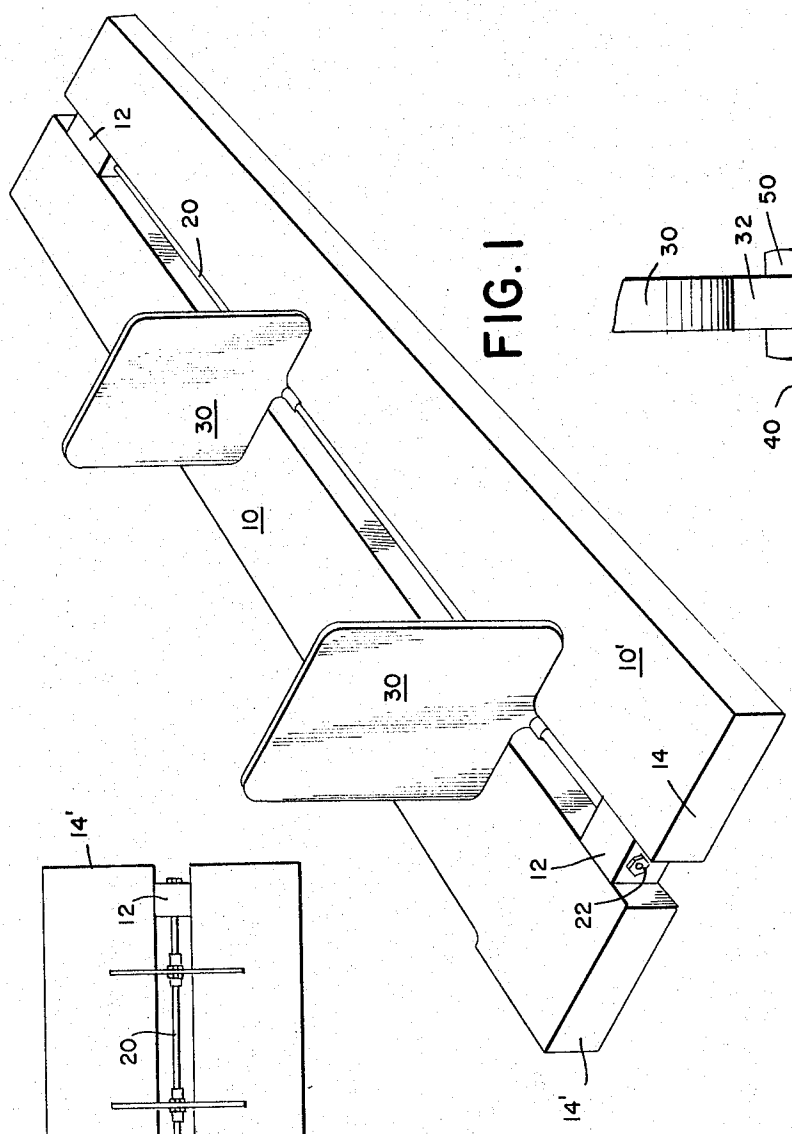


FIG. 1

FIG. 3

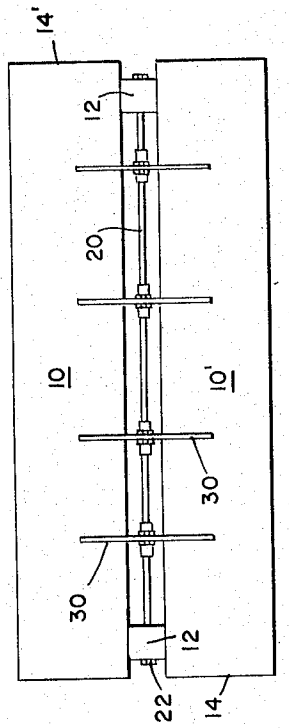


FIG. 2

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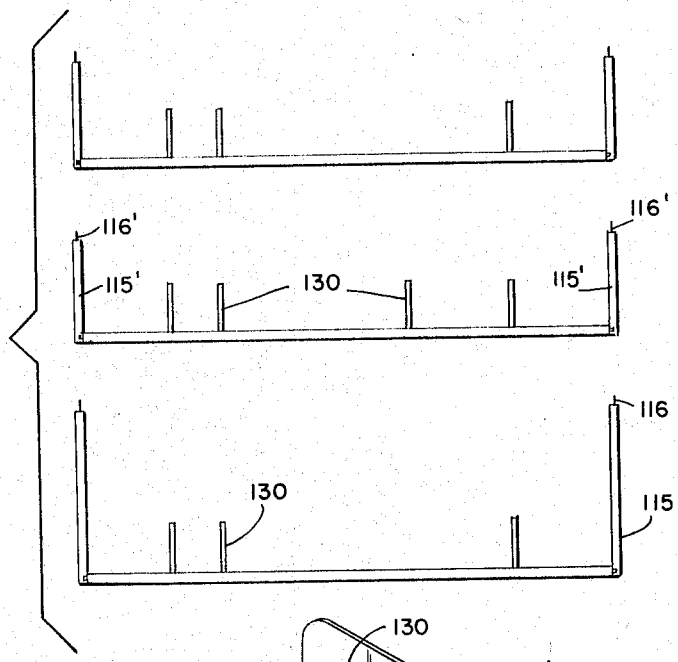


FIG. 5

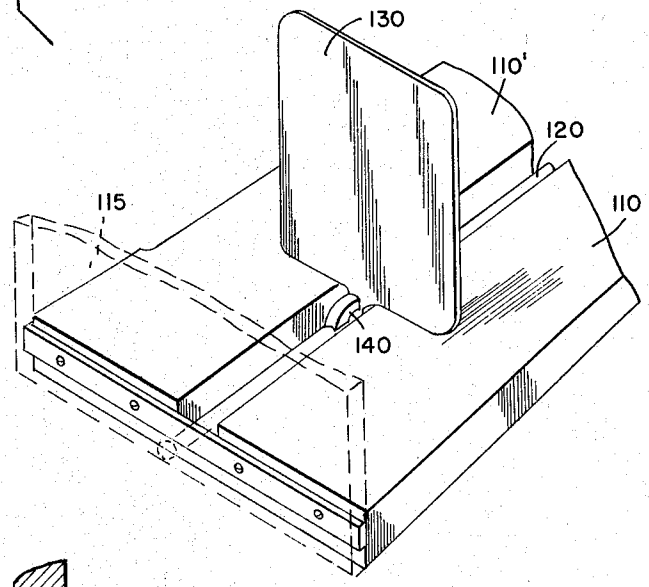


FIG. 6

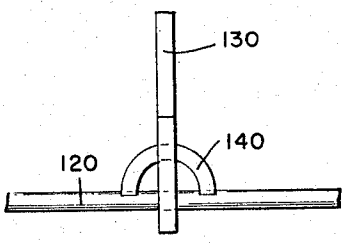


FIG. 7

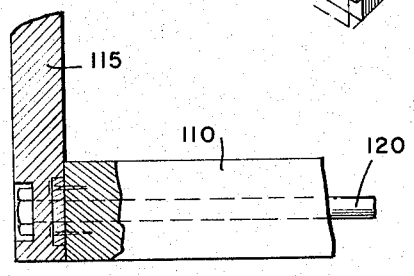


FIG. 4

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3,301,407

SHELF DIVIDERS

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3 Claims. (Cl. 211—184)

This application concerns dividers that may be selectively positioned along a storage base to orient stored material perpendicular to the base and parallel to the dividers. Specifically, this application refers to a shelf having dividers which may be selectively moved across a shelf but which will resist forces having components tending to rotate the divider with respect to the shelf.

Many systems have been devised and have been used for vertically supporting materials in file drawers. However, due to their unsightly construction, the same dividers are not acceptable for use in shelves. By the same token, dividers and book stops aesthetically acceptable for shelf use do not provide the lateral support required for storing books and heavy materials.

Described herein is an integral shelf divider system which is acceptable for table top use, which may be readily compounded into a bookcase, and which is useful in file drawers. Besides providing an anchored divider and concealing the entire anchoring portion of the divider within the shelf, the present invention discloses a divider which effectively resists turning forces while offering reduced resistance to sliding and relocation.

One object of this invention is the provision of a shelf divider system acceptable for use in bookshelves and table top racks.

Another object of the invention is the provision of a divider system which reveals only a flat, thin plate above the surface of a shelf and which conceals an entire anchoring mechanism within the shelf.

One other objective of the invention is the provision of a magnetic anchoring means for shelf dividers.

Another object of the invention is the provision of compoundable integral shelf-divider units for constructing bookcases.

Further objects of the invention will be apparent from the specification and from the drawings in which:

FIGURE 1 is a perspective view of the basic shelf-divider system;

FIGURE 2 is a plan view of the integral shelf-divider shown in FIGURE 1;

FIGURE 3 is a detail of the divider anchoring means;

FIGURE 4 is a sectional corner detail of a shelf having an end plate;

FIGURE 5 is an exploded elevation of compounded shelves;

FIGURE 6 illustrates a second embodiment of the invention; and

FIGURE 7 is a detail of the divider anchoring means for the second embodiment.

Referring to FIGURE 1, a wooden shelf is constructed of two elongated parallel sections **10** and **10'**. Blocks **12** are glued or otherwise mounted between the shelves adjacent opposite longitudinal ends **14** and **14'**. Bar **20** having threaded ends extends through holes drilled in opposing blocks **12**, and the bar is secured therebetween by nuts **22**. Vertical dividers **30** are mounted for sliding and selective positioning along bar **20**, which is best illustrated in FIGURE 2.

As shown in the detail FIGURE 3, lugs **32** integrally depend from dividers **30**. Lugs receive supporting bushings **40**, which have inner diameters slightly larger than the outer dimension of rod **20**. External threads of bushings **40** receive nuts **50** which are turned tight against

lugs **32**. The resultant construction is a shelf-divider system having dividers which may be slid along bar **20** but which resist any upsetting force having a rotational component such as that which would be applied by books or file materials stacked on the shelf. FIGURES 4, 5 and 6 illustrate the compounding of the shelf-divider systems to form a bookcase. In FIGURE 4, rod **120** is anchored in end plate **115**. Holes drilled in the vertical extremities of the end plates **115** and **115'** receive pins **116** and **116'**.

FIGURE 6 illustrates a second embodiment of the invention, in which parallel shelf portions **110** and **110'** are fixedly separated by a strip attached to respective ends of the sections. Bar **120** made of a magnetic material passes through spanning end strips and is anchored in end plate **115** shown in phantom lines. Vertical divider **130** receives bar **120** and is held in a fixed position thereon by magnets **140**. As an alternative, the magnets may take the form of annular bodies and the anchoring means will be similar to that shown in FIGURES 1 and 2.

Although this shelf-divider system has been described by specific embodiments, it will be obvious to one skilled in the art that the invention disclosed herein is not limited to the examples. Because of the many applications to which the invention may be applied, its scope is defined only in the appended claims.

I claim:

1. A divider system comprising:

(A) an elongated base;

(B) a magnetic bar passing through a longitudinal opening in said base, said bar fixed to said base at opposite longitudinal ends thereof;

(C) at least one divider generally perpendicularly oriented with respect to said base, said divider having a lower lug projecting into the opening in said base;

(D) magnetic means supported in an opening defined by said lugs, and having ends magnetically attached to said bar, said ends being in the same plane as said rod, said magnetic means imposing relatively little resistance to sliding in the same plane as said rod, and imposing relatively great resistance to sliding in a plane perpendicular to said plane of said rod.

2. The shelf divider as described in claim **1** further comprising spanning means connecting the longitudinal ends of said shelf

vertical end plates overlie opposite longitudinal ends of said shelf, said plates receiving said spanning means and anchoring said bar, said plates being urged toward each other by thread and nut means on said bar, said plates further defining vertical extremities, one of said extremities having a plurality of drillings while the other extremity has a plurality of pins.

3. A divider system comprising:

(A) an elongated base;

(B) a bar passing through a longitudinal opening in said base, said bar fixed to said base at opposite longitudinal ends thereof;

(C) at least one divider generally perpendicularly oriented with respect to said base, said divider having a lower lug projecting into the opening in said base;

(D) an elongated bushing having greater inner dimensions than the outer dimension of said bar, said bushing being fixed to said lug and attached to said bar, imposing relatively little resistance to sliding in a perpendicular orientation and imposing relatively great resistance to sliding in an extra perpendicular orientation;

(E) said bar defining a generally cylindrical shape, and having external threads;

(F) nuts mutually engaging said external threads and abutting opposite sides of said lug, to secure fixed lug to said bushing; and

(G) spanning means connecting the longitudinal ends of said shelf including vertical end plates overlying opposite longitudinal ends of said shelf, said plates receiving said spanning means and anchoring said bar, said plates being urged toward each other by thread and nut means on said bar, said plates further defining vertical extremities, one of said extremities having a plurality of drillings while the other extremity has a plurality of pins.

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