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2,808,908

COPY HOLDING DEVICE FOR READING STAND

Filed Feb. 3, 1956

2 Sheets-Sheet 1

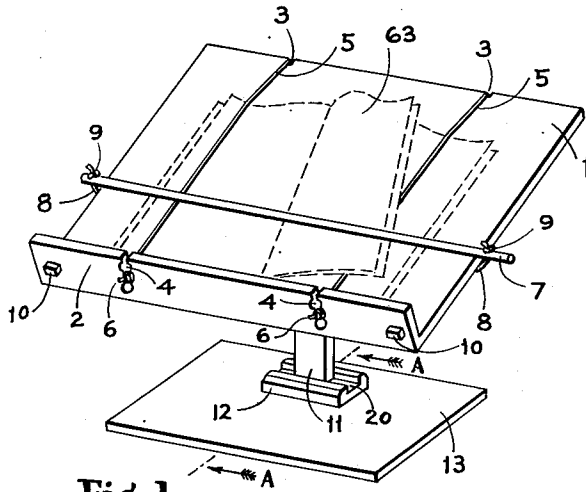


Fig. 1

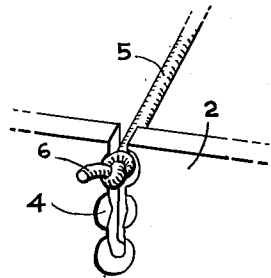


Fig. 4

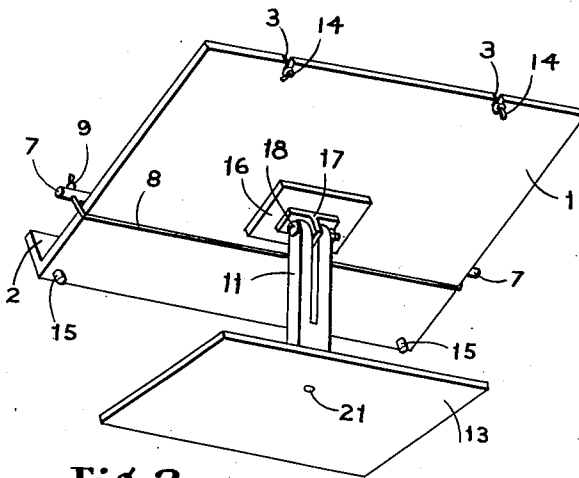


Fig. 2

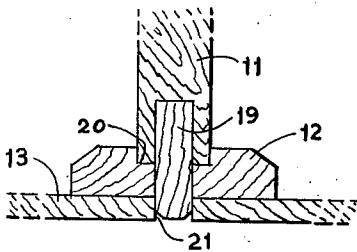


Fig. 3

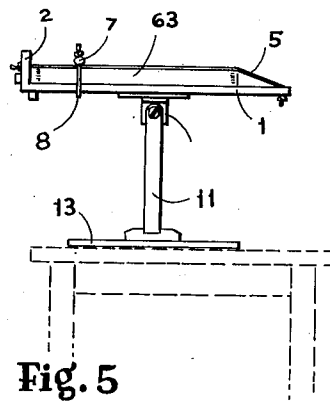


Fig. 5

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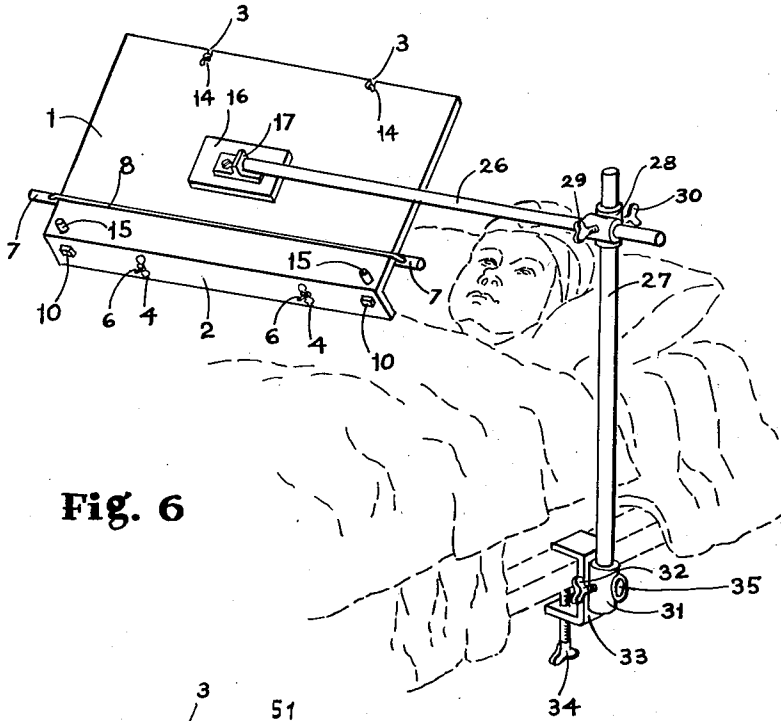


Fig. 6

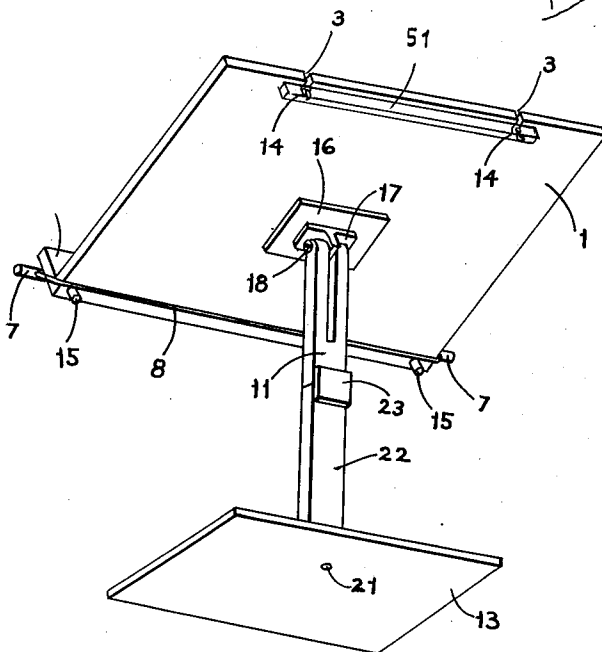


Fig. 7

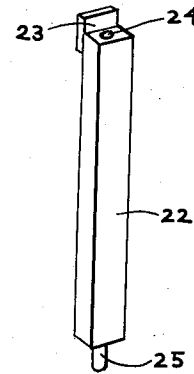


Fig. 8

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COPY HOLDING DEVICE FOR READING STAND

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3 Claims. (Cl. 45—80)

This invention relates to improvements in reader stands and copy stands, portable lecterns and holders for architect plans or designs.

The principal object of my invention is to hold a book flat, or a number of sheets of paper down in the event of a draught or breeze. Additionally, this unique stand is designed so that a person can turn a page in the book easily and simply without any awkwardness or inconvenience experienced in most reader stand page retention devices. It is just as easy, or perhaps even easier, to turn the page of a stiff book held in my invention as it would be if the book simply were lying on a flat surface.

The nature of my invention also makes it particularly useful to invalids or bedridden patients who are unable to read in a sitting position, or to bed readers who tire of sitting up. My device permits them to read lying down with the book held in place and slanted down above the eyes.

Also, the ease of turning a book page makes this simple but effective invention adaptable to being used on music stands and lecterns, particularly where there may be a breeze which would otherwise disturb the leaves or papers being held.

Finally, my device can be elevated in any of a number of ways to sit behind a typewriter, thereby making it easier for a typist to copy reading material. It can also be elevated as a lectern, making it easier for a teacher or lecturer or public speaker to speak from a desk or table without having to bend down to refer to notes or papers.

In the drawings:

Figure 1 is a perspective view of the front of a device incorporating the features of this invention.

Figure 2 is a perspective rear view of the apparatus shown in Fig. 1.

Figure 3 is an enlarged fragmentary vertical sectional view shown on line A—A in Figure 1.

Figure 4 is an enlarged fragmentary perspective view of the shelf rest in Figure 1.

Figure 5 is a side elevation on a slightly reduced scale of the apparatus shown in Fig. 1.

Figure 6 is a perspective view of a modification of my invention being used by a bedridden patient.

Figure 7 is a rear perspective view of a modification of apparatus shown in Fig. 1.

Figure 8 is an enlarged perspective view of the extension leg shown in Figure 7.

Referring to Figure 1, the stand comprises a main back member 1 and a protruding lip or shelf rest 2 upon which a book 63 or papers are placed. As viewed in Figure 2 at approximately the center of the rear of the main back 1 is attached in any suitable fashion a strengthening or supporting plate 16. Attached to this plate 16 is a friction hinge 17, which in turn is attached by a bolt and nut assembly 18 to leg 11. The nut is screwed tightly to insure a friction action. Out of the bottom of leg 11 protrudes a peg 19, as shown in the cross sectional view of Figure 3. The bottom of the support leg and peg fit snugly into a slot 20 and hole 21 of a strengthening plate

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12 attached securely to base 13. Thus constructed, it can clearly be perceived that the main back can be slanted or tilted at any angle for comfortable reading or copying. Also, it can be tilted horizontally as displayed in Figure 5, thus quickly transforming the reader stand into a lectern. If it is desired to increase the height, extension leg 22, viewed in Figure 8, is inserted between the bottom of support leg 11 and the supporting plate 12 of base 13. Peg 19 of the support leg 11 fits into hole 24 of the extension leg, while peg 25 fits into hole 21 of the base-plate assembly. Lip 23 which extends above the top of the extension leg 22, prevents the copy stand from swiveling around. The device with the extension in place is viewed in Figure 7.

The extension legs shown in these drawings are only suggestive of several which could be successfully used on my invention. The legs may have a tubular extension, with a lock-nut or friction thumb screw as used in camera tripods, or a friction button; or a slot or holes with a thumb screw or bolt and wingnut; or a series of legs hinged together so that they fold and unfold.

The retaining means, as shown in Figures 1 and 4, consist essentially of two elements. The primary one consists of a pair of heavy elastic cords or springs which are knotted at both ends. The knotted ends 6 of each elastic cord 5 are positioned in countersunk-hole slots 4 of the support shelf 2. The thickness of the copy or reading material to be held in place will determine the particular countersunk hole in slot 4 the knots 6 will reside in.

To describe how the book is placed in the device, let us suppose that a student wants to study chapters six and seven of a textbook. He turns to chapters six and eight, holding the pages comprising chapters six and seven vertically, separating them from the rest of the book. He then stretches the elastic cord 5 on the left over the pages and book cover remaining on the left side and positions knot 14 in slot 3 at the top of the main back 1. Then he repeats this action with the right cord and pages and book cover remaining on the right side. The book now is firmly held to the main back member, but the pages of chapters six and seven remain free.

In many cases these free pages would be stiff, refusing to lie flat. Or a breeze or draught could disturb them. Accordingly, the secondary retaining element takes care of these aspects. This element consists of a bar 7 and a spring or elastic band 8. The ends of the spring or band are attached in any suitable fashion to the ends of the bar 7. As illustrated in the drawings, the elastic bands have knots 9 and are strung through small holes in the bar. The bar is placed over the front of the book, and the elastic or spring behind the main back 1. The bar may be adjusted anywhere up or down over the book until it is stopped in the back by the friction hinge. To turn a page, a person simply slides the bar down to the support shelf with the left hand, turns the page with the right hand and then places the bar back up again with the left hand. In this action the reader does not have to let go of the bar while turning the page, and the action is accomplished smoothly, quickly and easily.

Referring back to the primary retaining means, instead of having the countersunk notches in slot 4, the bottom of support shelf 2 could protrude outwards and downwards at an angle so that when the elastic cord is stretched into position the knot will have a tendency to press inward against the book. Also, if it is desired to reduce the outward protrusion of the support shelf 2 in the interest of saving space or of design, a hinged extension of the slot 4 could be secured to the support shelf 2. Or, in the interest of economy of manufacture, the slot could be left out entirely, and the elastic cord 5 secured at the bottom of back 1 through a single hole. While this effectively retains a book or sheaf of papers, there is a tend-

ency in this method to crimp the bottom of the page unless one is careful to prevent it.

Referring back to the secondary retaining element, to prevent the elastic cord or spring 8 from slipping off the bottom, a peg 15 is attached on each side of the bottom of main back 1. Similarly, there are a pair of stops 10 on the bottom of support shelf 2 for the retainer bar 7. Thus, the bar may rest just under the support shelf while placing the book or papers in place, or when it is not needed, as shown in Figure 7.

The vertical elastic cords 5 may be spaced apart any width desired. However, a recommended width is $7\frac{1}{2}$ inches. This width not only takes care of most sizes of books, but also the standard $8\frac{1}{2}$ " x 11" typing papers. It is a simple operation to place the two cords along the edges of a standard sheet of paper. This holds them securely, and it is easy to slip the right edge of the sheet from under the right elastic cord with a leftward grasping motion, and then pull the whole sheet out to the right from under the left cord. And if an open book smaller than $7\frac{1}{2}$ inches wide is to be held in the device, one needs only to criss-cross the elastic cords 5—the left cord being positioned in the right slot 3, and the right one in the left slot.

The primary retaining means need not be restricted to vertical elastic cords. They may be made of cotton, string, leather straps, plastic, etc., anchored at the bottom of the back member 1 and attached at the top rear by a knob, or hook, or clamp, of buckle, or clip, or any other suitable means. Also, the primary retaining means may consist of vertical bars with holes through each end and corresponding holes in the top and bottom of the back member. The bars could then be bolted and tightened in place with a wing nut, a spring clamp, or a sliding bolt mechanism on the opposite side. Still another means would consist of spring clamps or spring clips on a horizontal track or tracks across the face of the back member. The spring clips could be adjusted to the proper width of the book, and then clamp upon the edges of the book cover and pages to be held in place. Similarly, these spring clamps or spring clips could be attached to heavy elastic bands or springs, the other ends of which would be anchored to the right and left sides behind the main back member. The tension in the springs or elastic cords would be sufficient to adjust to various widths of books.

In Figure 6 an invalid is shown lying down reading a book above his eyes. The two vertical cords 5 hold the book in place and prevent it from falling out of the device, even though the book and stand may be completely inverted. As shown, the rear of the stand is attached in any suitable fashion to the end of a horizontal rod 26 at 17. The slant and the horizontal right-left position may be adjusted by moving within the horizontal sleeve 28. Thumbscrew 29 tightens the rod in place. Similarly the up-and-down position may be adjusted on vertical rod 27 and tightened in place by thumbscrew 30. The end of vertical rod 27 is inserted into one of three holes 35 in T-square 31, and secured by tightening thumbscrew 32. The T-square 31 is secured to C-clamp 33. Thumbscrew 34 secures the whole assembly to either a spring frame or bed frame. It could also be attached to a table or desk edge, or open drawer for those who like to read leaning back in their chairs, with their feet on their desks.

On a larger scale, the reader-copy stand may be converted into a holder of plans for contractors and architects. In this event there is no need for positioning first

the left elastic cord 5 in place and then the right one. The entire operation can be effected in a single effort by joining the top ends of cords 5 by a stretcher bar 51 as shown in Figure 7. This way the positioning in place of the single bar takes care of both cords at the same time. For this purpose, it may be desirable to have more vertical cords 5 attached to the stretcher bar 51 with a corresponding number of notches and slots 4 and 3.

The device, of course, may be any size desired. However, it's interesting to note that this stand will accommodate books which open up to a width wider than the stand. To accommodate them, all that is needed is a retainer bar 7 slightly longer than the width of the oversized book.

Also, because of the nature of the retaining devices, the device could operate without a lower protruding shelf 2.

The foregoing is considered as illustrative only of the principles of my invention. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction and operation shown and described, and accordingly all suitable modifications and equivalents may be resorted to, falling within the scope of the appended claims.

What is claimed as new is as follows:

1. A copy holding device for a reading stand having a main back member, a copy support shelf fixed to the lower edge thereof, and means to support the copy on said main back member in reading position including a holding device comprising a primary retaining element consisting of a plurality of spaced vertically disposed elastic cords adjustably fastened at their lower ends to said shelf, and secured at their upper ends to the top edge of said main back member, and a secondary holding element comprising a horizontally disposed vertically adjustable bar extending across said vertically disposed elastic cords on the opposite side thereof from the copy supporting surface of said back member, and elastic cord means connected to the ends of said bar and extending behind said back member to normally draw said bar and vertically disposed elastic cords toward the front copy supporting surface of said back member.

2. In a copy holding device as set forth in claim 1, wherein the adjustable fastening of the lower ends of said spaced vertically disposed elastic cords comprises transverse slots in said shelf extending from the outer edge thereof to the front face of said back member, and spaced knot receiving cavities along said slots on the lower surface of said shelf.

3. In a copy holding device as set forth in claim 1, wherein the spaced vertically disposed elastic cords have their upper ends each secured to a horizontally disposed stretcher bar, and cord receiving slot means for each of said vertically disposed cords formed in the upper edge of said back member to secure said stretcher bar to the back surface of said back member.

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