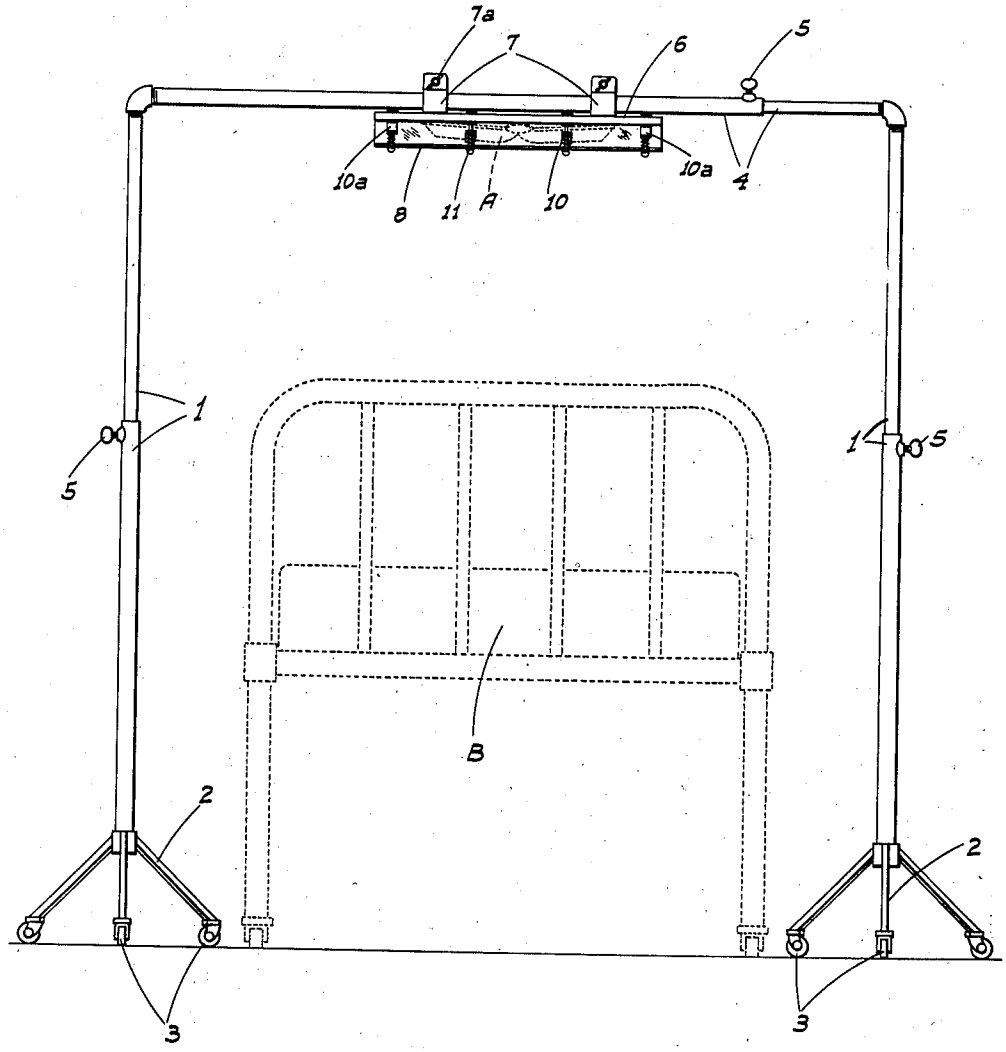
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BOOK STAND

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Fig. 1




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BOOK STAND

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Fig. 2

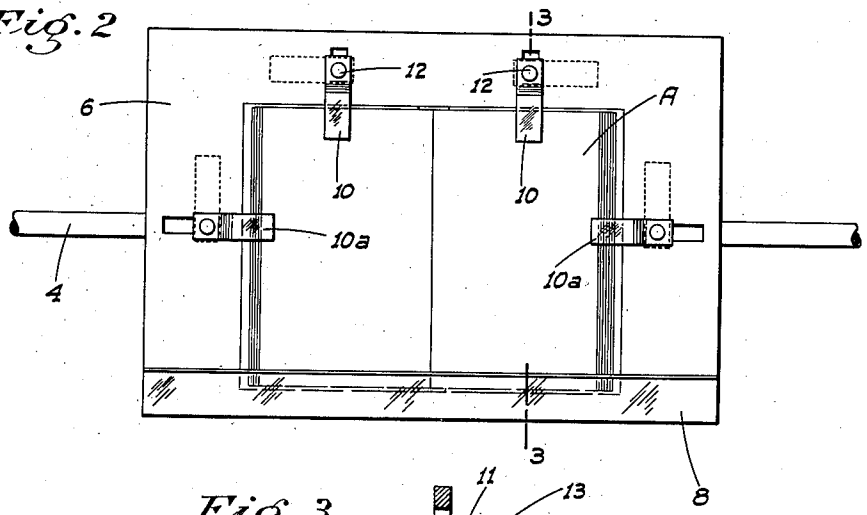



Fig. 3

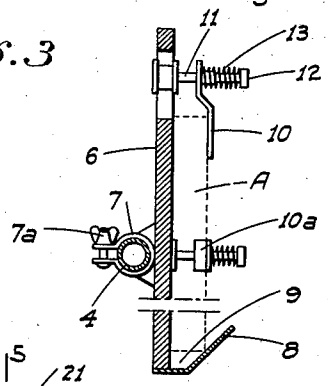



Fig. 4

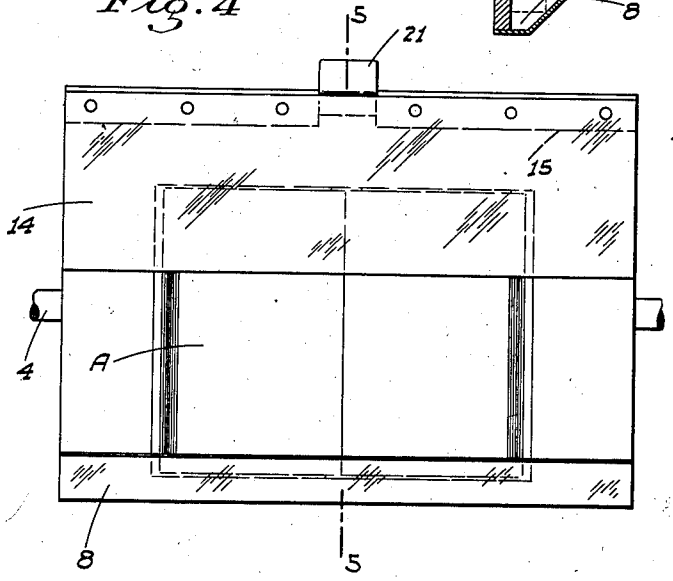
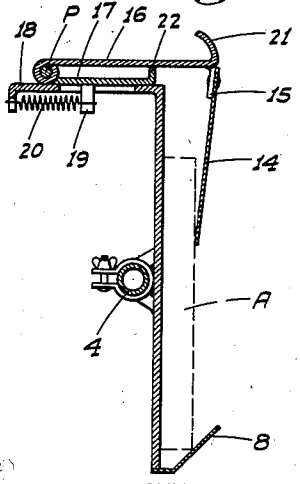



Fig. 5




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# UNITED STATES PATENT OFFICE

2,337,675

## BOOKSTAND

Donald McNeil, Sacramento, Calif.

Application May 15, 1942, Serial No. 443,115

5 Claims. (Cl. 45—60)

This invention relates in general to a stand arranged to support a book in open position and adjacent a person reading; the invention being directed in particular to, and it is my principal object to provide, a book stand for such purpose which is designed especially for use in hospitals, whereby to facilitate reading of books by patients.

Another object of this invention is to provide a book stand which is arranged to support an open book in inverted position above a bed, so that such book can be easily read by a hospital patient while lying down; the device being arranged, however, so that the book holding unit can be adjusted to any degree of tilt of the book as may be desired by the patient.

A further object of the invention is to provide in a book stand, a unique book holding unit which functions to effectively hold the book in open position and to hold the leaves against accidental and undesirable turning or fluttering when the book is inverted or disposed at a considerable tilt for reading.

A further object of the invention is to produce a simple and inexpensive device and yet one which will be exceedingly effective for the purpose for which it is designed.

These objects I accomplish by means of such structure and relative arrangement of parts as will fully appear by a perusal of the following specification and claims.

In the drawings similar characters of reference indicate corresponding parts in the several views:

Figure 1 is an elevation of the book stand as in use.

Figure 2 is a plan view of one form of the book holding unit.

Figure 3 is a cross-section on line 3—3 of Fig. 2.

Figure 4 is a plan view of another form of the book holding unit.

Figure 5 is a cross-section on line 5—5 of Fig. 4.

Referring now more particularly to the characters of reference on the drawings, and at present to the structure shown in Figs. 1–3 inclusive, the book stand comprises a pair of vertical posts 1 disposed in spaced relation and supported at their lower ends by pedestals 2 which include floor engaging casters 3. At their upper ends, the posts 1 are connected by a horizontal cross-bar 4; the length of this cross-bar being somewhat greater than the width of a single bed, whereby the posts 1 and bar 4, which form a supporting frame, may be positioned in straddling relation to a hospital bed B in the manner shown in Fig. 1. The posts 1, as well as the bar 4, are sectional and telescopic, so that said posts may be adjusted as to height and the cross-bar adjusted as to length. Thumb screws 5 normally hold the sections of posts 1 and cross-bar 4 against relative movement.

The book holding unit is supported from bar 4 and comprises a rigid back-board or panel 6, preferably of plywood or the like, and of rectangular configuration. At the back and in longitudinally spaced relation, the back-board 6 is fitted with a pair of alined split clamping collars 7 which surround the cross-bar 4, the latter being circular in cross-section. These split collars normally engage the bar 4 in frictional holding relation under the influence of clamping bolt and nut units 7a thereon. By means of this arrangement, the back-board 6 may be set or locked in any desired position relative to the bar 4.

A shelf 8 extends along the lower edge of back-board 6 from end to end thereof; said shelf from its inner longitudinal edge and to a point a short distance outwardly of the face of back panel 6 being disposed at right angles thereto, and thence extending at an angle in diverging relation to the back-board in overhanging relation to the face thereof. Said shelf is of substantial width, and said angle of divergence is such that when an open book A is placed with its back against the back-board 6, the lower edge of said book may be frictionally engaged in the trough 9 formed between the shelf and back-board. Adjacent its upper edge, the back panel is fitted with a pair of longitudinally spaced fingers 10 pivoted at one end on outwardly and vertically projecting pins 11; said pins being headed as at 12 and compression springs 13 surrounding the pins between heads 12 and fingers 10 whereby to normally urge the latter toward board 6. When the fingers 10 are swung from a position clear of the open book A to a point overhanging the same, said fingers under the influence of springs 13 hold the book on opposite sides of the binding against the back-board. If desired, other fingers 10a may be similarly mounted in spring pressed relation on the back-board beyond opposite ends of the book, but adapted to overhang and engage the end portions of the latter. All the pins are adjustable in the back-board as shown, so that large or small books may be accommodated without the need of using excessively long fingers.

The shelf 8, as well as fingers 10 and 10a, are preferably constructed of a transparent material such as "Lucite," so that none of these elements interfere with reading of the text of the book.

For use by a patient who is lying down in bed B, the split collars 7 are released, after the book

has been properly positioned against the back-board, and the latter is swung to an inverted position as is shown in Fig. 1. Thus the open book, held firmly against the back-board, is inverted and positioned for reading by the patient.

In the form of the invention shown in Figs. 4 and 5, the book holding unit is constructed as previously described, except that the fingers 10 and 10a and the mounting means therefor are omitted and the following arrangement substituted therefor:

A rigid holding flap 14 of transparent material such as "Lucite" of a length to extend from end to end of the panel, overhangs the latter from its upper edge; such flap being of substantial width as shown. At its upper edge the flap 14 is fitted with a reinforcing strip 15. A supporting finger or plate 16 extends laterally from the reinforcing strip 15 centrally of the ends of the latter and at the end remote from flap 14 is pivoted as at P to a slide member 17 supported on a bracket 18 which likewise projects laterally from back-board 6. A lug 19 on slide 17 projects through a slot in bracket 18 and a tension spring 20 connects between said lug and an ear on the outer end of said bracket. The spring normally urges the slide 17 in a direction away from the back panel, and thus urges the flap 14 toward the face of the same. A finger grip 21 above the reinforcing member 15 is used to swing the flap 14 and finger 16 to and from a position with the sheet overhanging the back-board. A stop 22 on the slide limits movement of the finger 16 in the direction of the back-board.

The flap 14 is transparent and of sufficient width to overhang the upper portion of an open book A whose lower portion is frictionally engaged with the shelf 8; the spring 20 urging the flap 14 into frictional and holding engagement with the book. As clearly shown in Fig. 5, the flap 14 in its transverse plane normally converges slightly relative to the back-board; this convergence producing a more effective holding action of the sheet on the book.

While the book stand as above described has been designed mainly for use in hospitals, it may of course be used otherwise, and wherever its use would be convenient and aid in the reading of a book.

From the foregoing description it will be readily seen that I have produced such a device as substantially fulfills the objects of the invention as set forth herein.

While this specification sets forth in detail the present and preferred construction of the device, still in practice such deviations from such detail may be resorted to as do not form a departure from the spirit of the invention, as defined by the appended claims.

Having thus described my invention, what I claim as new and useful and desire to secure by Letters Patent is:

1. A book holding unit for a book stand, said unit comprising a back-board, a substantially horizontal shelf extending along one edge of said back-board, said shelf being of substantial width and overhanging the face of the back-board in diverging relation thereto whereby to form a trough to frictionally engage and form a seat for the bottom of an open book resting against the face of the back-board, a book holding flap overhanging the back-board from the edge opposite the shelf, and means mounting said flap in connection with the back-board and urging the flap toward the latter, said flap engaging the open book from end to end and between its sides.

2. A book holding unit as in claim 1 in which said shelf and flap are of transparent material.

3. A book holding unit for a book stand, said unit comprising a back-board, a substantially horizontal shelf extending along one edge of said back-board, said shelf being of substantial width and overhanging the face of the back-board in diverging relation thereto whereby to form a trough to frictionally engage and form a seat for the bottom of an open book resting against the face of the back-board, a book holding flap overhanging the back-board from the edge opposite the shelf, and means mounting said flap in connection with the back-board and urging the flap toward the latter, said flap engaging the open book from end to end between its sides; said mounting means comprising a bracket projecting laterally from the back-board and in a direction away from the flap, a supporting finger projecting from the flap between its ends adjacent and parallel to said bracket, a slide mounted on said bracket for longitudinal sliding movement, a spring urging the slide away from the back-board and means securing said finger in connection with the slide.

4. A device as in claim 3 in which the finger is hinged in connection with the slide for movement of the finger in a direction to swing the flap away from the back-board.

5. A device as in claim 1 in which the flap from its edge adjacent said opposite edge of the back-board converges toward the latter.

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