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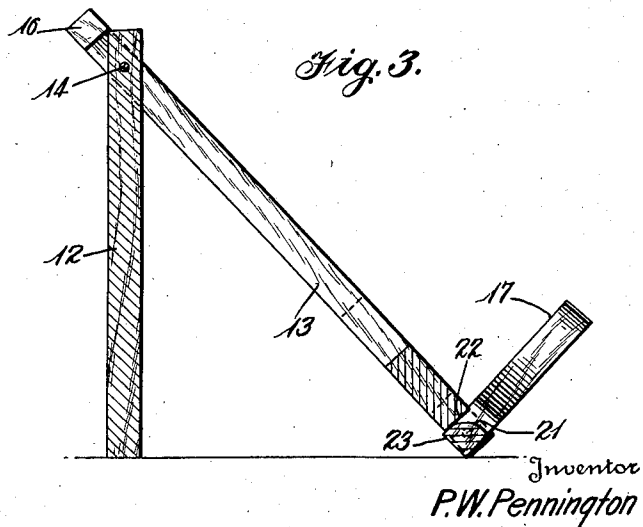
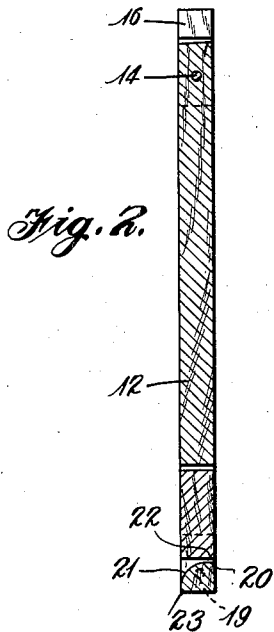
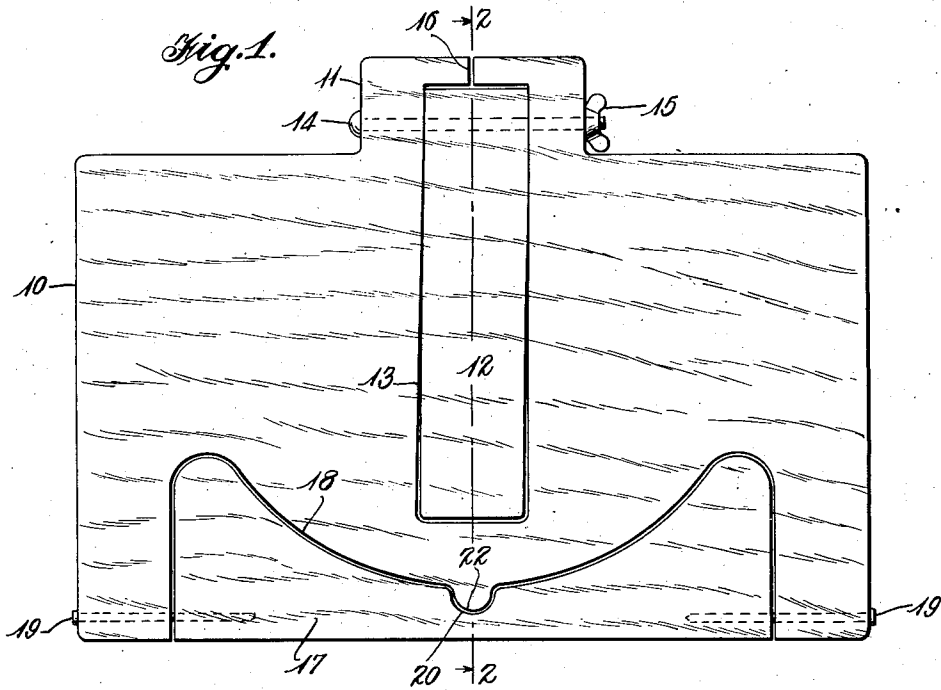
P. W. PENNINGTON

2,041,017

BOOK RACK

Filed June 17, 1935

2 Sheets-Sheet 1



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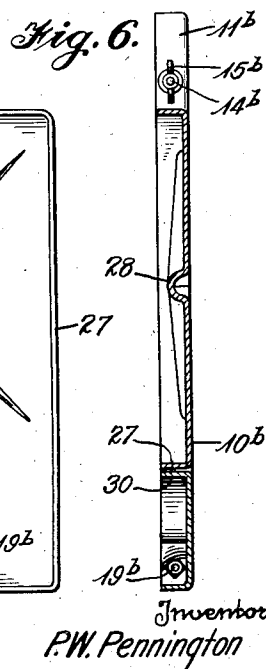
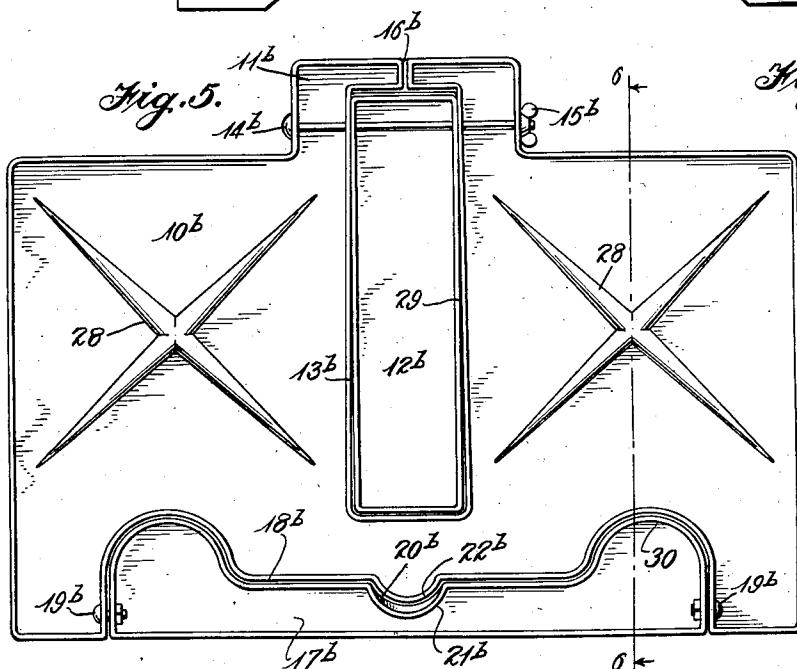
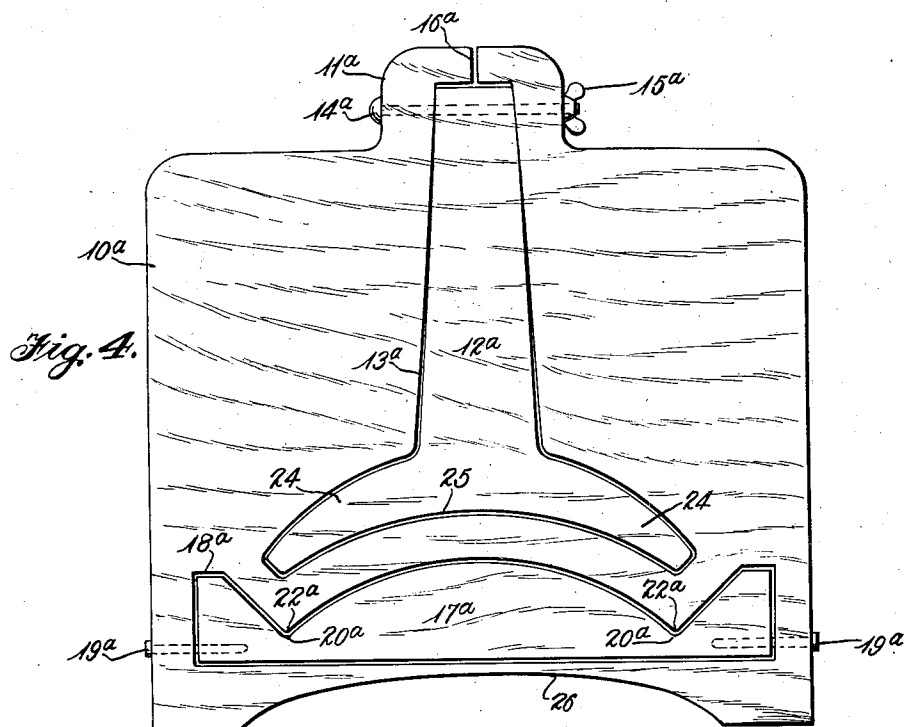
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2,041,017

BOOK RACK

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2 Sheets-Sheet 2



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UNITED STATES PATENT OFFICE

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BOOK RACK

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Application June 17, 1935, Serial No. 27,077

2 Claims. (Cl. 45—57)

This invention relates to new and useful improvements in book racks.

The primary object of the invention is to provide a book rack which may be very inexpensively manufactured and which will be extremely durable and serviceable.

A further important object of the invention is to provide a book rack which may be cut from a single piece of material or blank or which may be die cast, stamped, pressed, or molded from any suitable material or composition of materials or any suitable alloys.

A still further important object of the invention is to provide a book rack which is formed of three major parts adapted for being movable relative to each other from inoperative positions where all of the parts are arranged in a common plane to operative positions where all of the parts are angularly arranged with respect to each other and wherein the various parts are interfitted and associated with each other when in their inoperative positions to provide a substantially continuous or uninterrupted surface which may be used as a writing surface or lap table.

Other objects and advantages of the invention will be apparent in the course of the following description.

In the accompanying drawings forming a part of this specification and in which like numerals are employed to designate like parts throughout the same,

Figure 1 is a plan view of one form of book rack embodying this invention,

Fig. 2 is a vertical sectional view taken on line 2—2 of Fig. 1,

Fig. 3 is a similar view to Fig. 2 but discloses the three major parts of the rack angularly arranged in their relative operative positions,

Fig. 4 is a plan view of a slightly modified form of book rack,

Fig. 5 is a bottom plan view of a still further modified form of book rack, and

Fig. 6 is a vertical sectional view taken on line 6—6 of Fig. 5.

In the drawings, wherein for the purpose of illustration are shown the preferred embodiments of this invention, and referring particularly to Figures 1 to 3 inclusive, the numeral 10 designates the main body portion of a book rack which is adapted to be formed from a single piece or blank of material, preferably wood, by having the various portions cut from said piece or blank. The said main body portion is of substantially rectangular formation and has an extension 11 formed on its upper edge.

A bracing leg 12 is cut from the central portion of the main body 10 and its extension 11. By cutting the brace 12 from the body of the member 10, an opening 13 is formed in the body and in the central portion of the extension 11 which will receive the brace member 12 when the latter is arranged in its inoperative position. For the purpose of pivotally connecting the brace 12 to the extension 11, a headed pivot pin 14 is passed through suitable holes drilled through the extension 11 and the upper end of the brace 12. A wing nut 15 is threaded on the free end of the pivot pin 14. For the purpose of dividing the extension 11 into two relatively movable portions, a kerf 16 is cut through the outer portion of the extension from its top face to the upper end of the opening 13. This separating of the extension 11 into two relatively movable portions permits these portions to be drawn toward each other by means of the pin 14 and wing nut 15 to apply varying degrees of pressure and friction against the opposite side faces of the brace member 12 so that this member may be retained in any desired position of adjustment.

A book supporting shelf 17 is cut from the lower portion of the body 10. The cutting of the shelf 12 from the said body leaves an opening 18 in the body which is designed to receive the said shelf when in its inoperative position, or when it is arranged in the same plane as the body portion 10. Pivot pins 19 are driven into the opposite ends of the body portion 10 and the shelf 17 and are arranged in axial alignment with each other to pivotally connect the shelf 17 to the body 10.

The shelf 17 is notched at 20 and rearwardly relieved at 21, as shown in Figures 2 and 3. The margin of the opening 18 formed in the body 10 is provided with a projection 22 which is arranged and properly shaped to enter the notch 20 when the shelf 17 is located in its inoperative position, or arranged in the plane of the body 10.

It will be seen by comparing Figures 2 and 3 that the notch 20 formed in the shelf 17 has its bottom portion arranged in close proximity to the pivot axis of the shelf. The bottom of the notch 20 should be located closer to the axes of the pivot pins 19 than the edge portion 23 of the shelf so that when the shelf is swung into its operative position, at right angles to the plane of the body 10, the bottom edge 23 of the shelf will bind against the extremity of the projection 22 to limit the outward swinging movement of the shelf.

Figures 1 and 2 disclose this book rack in its collapsed, folded up or inoperative position

wherein the main body 10, the brace 12 and the shelf 17 are all arranged in a common plane. The top or upper surface of these three elements cooperate, when so arranged, to provide a substantially uninterrupted or continuous surface which will permit the folded rack to be used as a writing surface or a lap table.

The book rack disclosed in Figure 4 is designed primarily for the purpose of permitting it to be supported on the user's lap. The book rack shown in Figure 1 is intended to be supported on a table, or a desk, or the like. The book rack as shown in Figure 4 differs from the one shown in Figure 1 primarily with reference to the shape of the brace 12^a. This brace is cut from the body portion 10^a to form an opening 13^a which will receive the brace when the latter is arranged in its inoperative position. The lower end portion of this brace 12^a is provided with lateral, curved extensions 24 to provide a curved surface 25 which is intended to fit the top of the user's leg. This brace arm 12^a is pivotally connected to the extension 11^a of the body 10 in the same manner as that disclosed in Figure 1, or by means of the pivot pin 14^a. The extension 11^a is provided with a kerf 16^a to form the extension into two relatively removable parts which may be drawn toward each other by means of the wing nut 15^a to frictionally hold the brace in any desired position of adjustment.

A shelf 17^a is cut from the lower portion of the body 10^a to provide an opening 18^a adapted to receive the shelf when the latter is arranged in its inoperative position. Pivot pins 19^a are provided for pivotally connecting the shelf 17^a to the body 10^a.

To limit the outward swinging movement of the shelf 17^a relative to the body 10^a the shelf is provided with two notches 20^a which are relieved in a rearward direction in the same manner as illustrated in Figures 2 and 3 in connection with the first described form of the invention. These relieved surfaces have not been disclosed in connection with the type of book rack shown in Figure 4 for that reason. The main body 10^a is provided with extensions 22^a which cooperate with the notches 20^a of the shelf 17^a in the same manner as that described for the projection 22 of the previously referred to book rack.

The lower edge of the body portion 10^a is cut away at 26 to provide a curved surface concentric with the curved surface 25 of the brace 12^a and functions to fit the leg of the user.

Figures 5 and 6 disclose a further form of book rack which is intended to be produced by die casting, stamping, molding, or pressing the same from any suitable material, composition of materials, or alloy. In producing this form of book rack, the main body portion, the brace and the shelf, are adapted to be separately formed.

The main body 10^b is produced with an extension 11^b, an opening 13^b extending vertically of the body and a horizontally extending opening 18^b. The extension 11^b is provided with a kerf 16^b. All of the edges of the body 10^b and its two openings are provided with a flange 27 arranged at right angles to the plane of the body. When this book rack is made by casting or of

pressed plastic, ribs 28 are provided to prevent the body from checking or cracking on cooling and will permit the body to be made of lighter material in section.

A brace 12^b is suitably formed to fit the opening 13^b and is pivotally connected to the extension 11^b by means of the pin 14^b. A wing nut 15^b is provided to draw the two movable halves or portions of the extension 11^b to apply friction to the brace 12^b as described in connection with the other forms of book racks.

A shelf 17^b is pivotally arranged in the opening 18^b of the body and is pivotally supported by the bolts and nuts 19^b. The shelf 17^b is provided with a notch 20^b which is rearwardly relieved at 21^b. The body 10^b is provided with a projection 22^b which cooperates with the notch 20^b and its relieved portion 21^b in the same manner as that described for the similar elements of the previously referred to book racks.

It will be noted that all of the edges of the brace 12^b and the shelf 17^b are formed with marginal flanges 29 and 30 respectively.

Figure 5 discloses the rear face of the book rack with its brace and shelf. The various flanges 27, 29 and 30 extend rearwardly from the main portions of the body 10^b, the brace 12^b and the shelf 17^b. The front faces of these three elements are flat and provide a substantially continuous or uninterrupted surface as described in connection with the two previous forms of book racks.

It will be appreciated that the book rack shown in Figures 5 and 6 may be patterned after the rack shown in Figure 4 for adapting the same for use on a person's lap. Other features of construction which have been disclosed in connection with only one form of rack may be used on other forms notwithstanding the fact that disclosures of such changes have not been provided.

It is to be understood that the forms of this invention herewith shown and described are to be taken as preferred examples of the same, and that various changes in the shape, size, and arrangement of parts may be resorted to without departing from the spirit of the invention or scope of the subjoined claims.

Having thus described the invention, I claim:

1. A book rack of the type described comprising a main body portion having a pair of openings, a shelf pivotally mounted in one of said openings, said shelf having a notch formed in one of its edges, a projection formed on said body portion and cooperating with said notch to limit pivotal movement of said shelf, and a brace pivotally mounted in the other of said openings.

2. A book rack of the type described comprising a main body portion having a projection at its upper edge and an elongated opening extending partially into said projection, the projection being split from said opening to its outer end to provide two relatively movable portions, a brace arm received in said opening, a pivot pin for said brace arm extending through the two portions of said projection and adjustable to move said portions toward each other to apply a variable degree of friction on said brace arm, and a book supporting shelf on said body portion.

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