

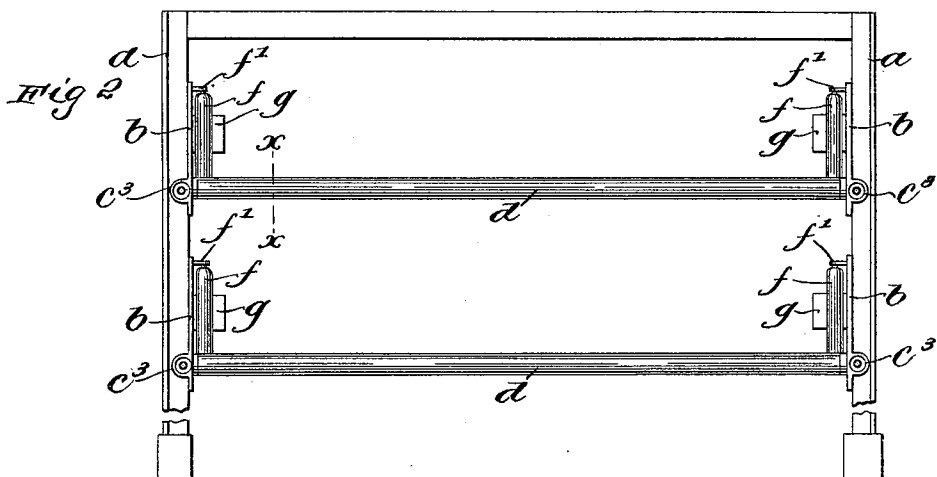
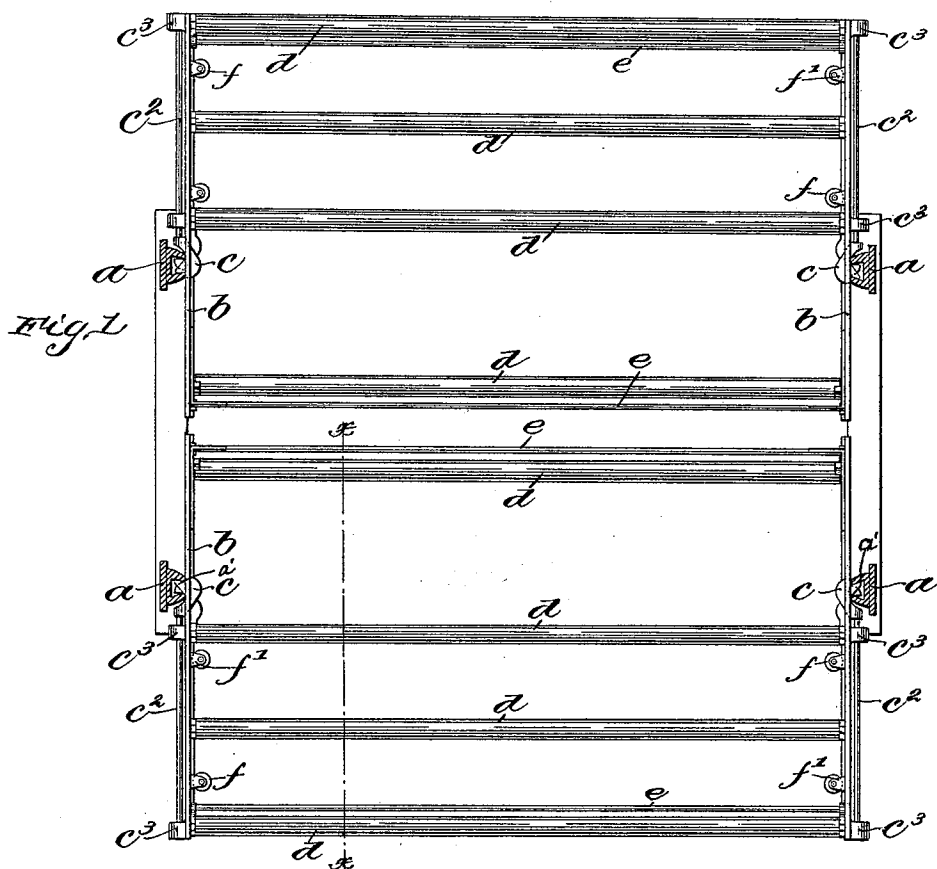
(No Model.)

3 Sheets—Sheet 1.

D. E. HUNTER.
ADJUSTABLE SUPPORT FOR BOOKS, &c.

No. 582,823.

Patented May 18, 1897.



Witnesses:

Thomas F. Drummond,
Walter E. Lombard.

Inventor:

David E. Hunter,
by Crosby Gregory,
Attys.

(No Model.)

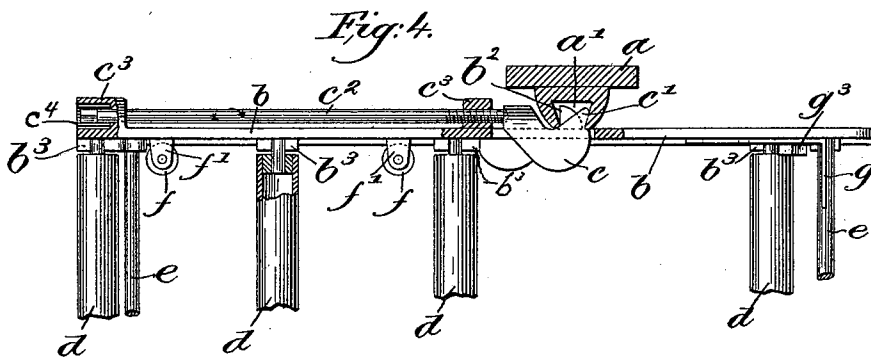
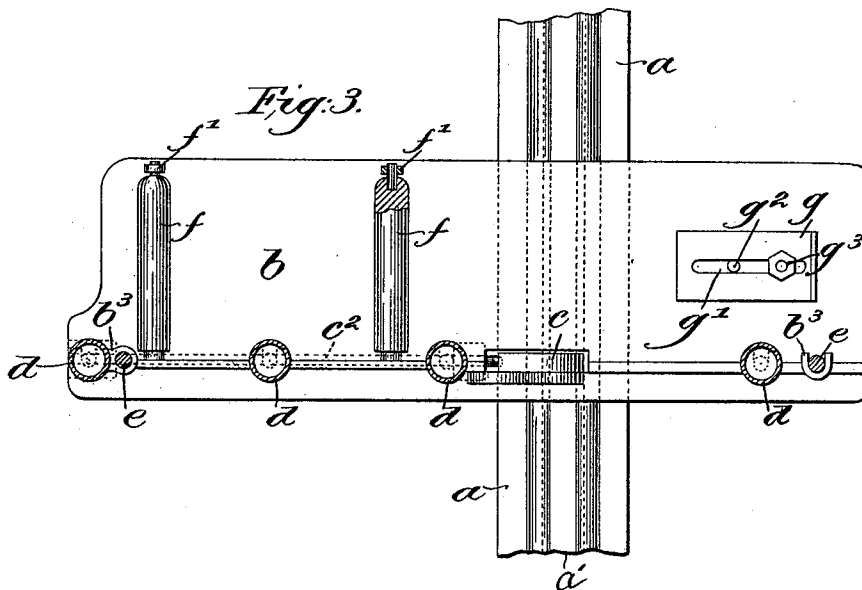
3 Sheets—Sheet 2.

D. E. HUNTER.

ADJUSTABLE SUPPORT FOR BOOKS, &c.

No. 582,823.

Patented May 18, 1897.



Witnesses:

Thomas G. Hammond,
Walter E. Lombard.

Inventor:

David E. Hunter,
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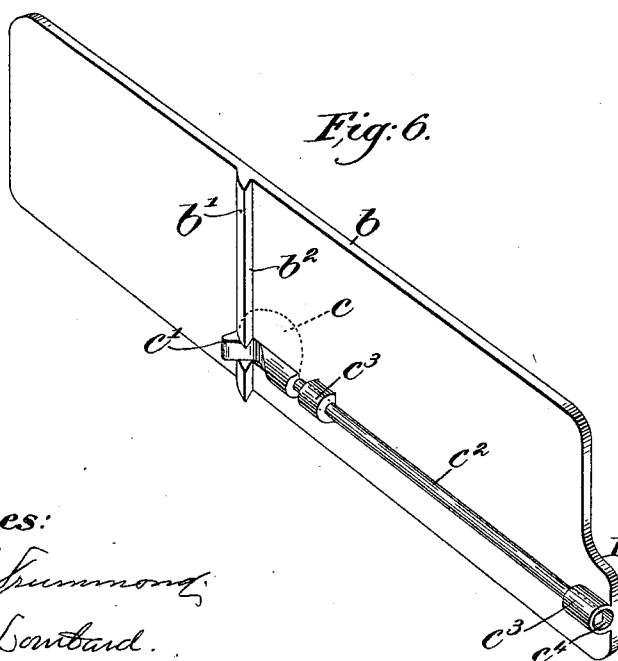
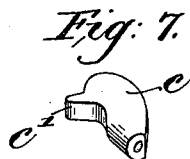
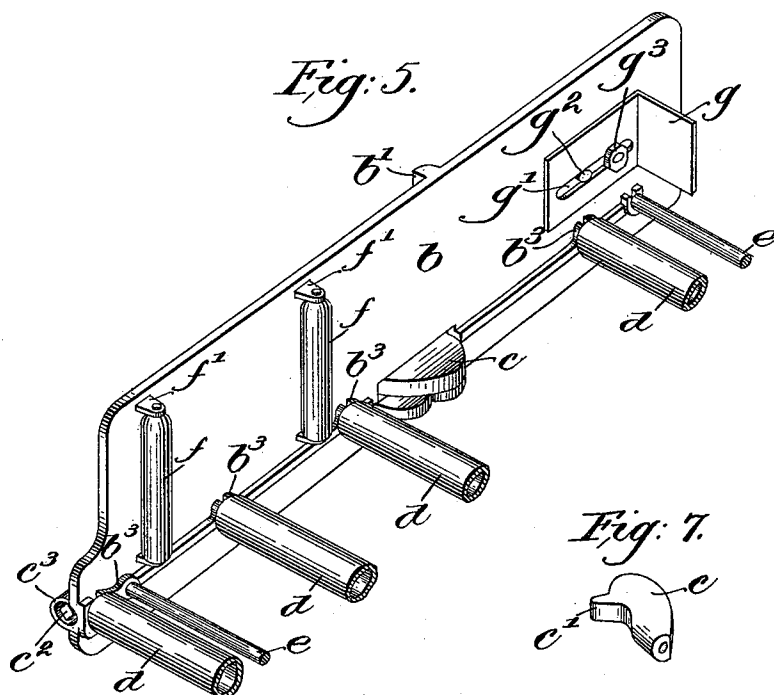
(No Model.)

3 Sheets—Sheet 3.

D. E. HUNTER.
ADJUSTABLE SUPPORT FOR BOOKS, &c.

No. 582,823.

Patented May 18, 1897.



Witnesses:

Wm. A. G. Summors,
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Inventor:

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UNITED STATES PATENT OFFICE.

DAVID E. HUNTER, OF CAMBRIDGE, MASSACHUSETTS.

ADJUSTABLE SUPPORT FOR BOOKS, &c.

SPECIFICATION forming part of Letters Patent No. 582,823, dated May 18, 1897.

Application filed October 19, 1895. Serial No. 566,195. (No model.)

To all whom it may concern:

Be it known that I, DAVID E. HUNTER, of Cambridge, county of Middlesex, State of Massachusetts, have invented an Improvement in Adjustable Supports for Books and the Like, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

10 This invention has for its object the production of a novel and improved adjustable support for books and the like.

As my invention is particularly adapted for use in connection with supports for books alone, I shall confine the present description to a book-support, it being understood, however, that my invention may be used in supports for carrying any articles other than books and be within the scope of the invention.

20 In banks and other offices where large books are employed it has heretofore been customary to provide the shelves, usually of wood, with rollers let in nearly flush with the top surfaces of the shelves in order that the books when pushed into their position upon the shelves should run upon the rollers, which by rotating would permit the books to be moved to their positions with less effort and with less wear and tear of the books.

30 In banks particularly it is the usual custom to lay the books flatwise upon the shelves instead of standing them endwise thereupon, as is generally the custom with smaller books. My invention comprehends special supporting means for rollers constituting shelves, as hereinafter set forth and claimed.

35 My invention also comprehends side rollers, as hereinafter claimed, standing vertically, or nearly so, at the inner sides of and adjustable with the brackets.

40 To prevent the brackets being moved so close to each other as to clamp and retard the rotation of the rollers journaled in and between the same, I may employ interposed struts to maintain at all times a proper separation of the brackets.

45 In my experiments in shelfwork I have found it to be desirable to provide such a construction as would not only admit of vertical adjustment of the brackets, but would at the same time permit ready removal of any

bracket at any position on the standard without requiring the brackets one and all to be removed from the top of the standard, as has heretofore been the usual practice. 55

My invention therefore comprehends a clamping or bracket-positioning device of special construction, as hereinafter claimed, which is capable of a partial release to admit of adjustment of the bracket, but which is also capable of a further releasing movement such as will permit the bracket to be entirely withdrawn from the standard. This clamping or positioning device is preferably employed in connection with a standard having an undercut or dovetail groove in which the bracket or its clamping or positioning devices are made to slide, the inturned wall or walls of the groove of the standard serving to retain the bracket in position thereupon. 60 65 70

In the drawings, Figure 1 is a top or plan view of a stack containing one embodiment of my invention, the standards being shown in section; Fig. 2, a face view of a part of a stack, showing two of the book-supports; Fig. 3, an enlarged cross-sectional detail taken on the dotted line *x x*, Figs. 1 and 2, looking to the left. Fig. 4 is a plan view of parts shown in Fig. 3, parts being broken away and the adjacent standard being shown in cross-section; Figs. 5 and 6, perspective views looking, respectively, at the inner and outer sides of a bracket with its attached parts to better illustrate the preferred construction involved in my invention; Fig. 7, a perspective detail of one form of clamping or positioning device. 75 80 85

Referring to the drawings, showing one embodiment of my invention selected for illustration herein, *a a* are suitable standards, shown as four in number and arranged in pairs, the standards of each pair facing each other, said standards at their inner or adjacent sides being shown as provided with grooves *a'*, preferably dovetail in cross-section, or with inturned walls of such shape as to provide undercut grooves. 90 95

The shelf-brackets being similar a detail description of one will be sufficient. 100

Referring particularly to Figs. 3 to 6, inclusive, each shelf-bracket *b*, as shown, is provided at its outer face with a substantially vertical rib or projection *b'*, shaped at one

side, as indicated at b^2 , to project under and engage one of the inner side walls of the groove of the standard. (See Fig. 4.) The other side wall of the groove in the standard is adapted in the present instance to be engaged by the engaging end c' of a positioning device c , shown as entirely independent of and loosely mounted in a perforation in the bracket b . (See Figs. 5 and 6.) This positioning device c is acted upon by the end of a manipulating device c^2 , shown as a rod mounted in suitable lugs c^3 on the outer face of the bracket and threaded in one or both of said lugs, so that rotation of the rod will cause longitudinal movement of the same. At its inner end adjacent the standard the manipulating rod or device c^2 acts against the positioning device c , and at its outer or front end said manipulating device is squared or otherwise adapted to receive a key or wrench by which it may be rotated, the outer or front end of said device being preferably contained within a socket, as c^4 , which may be formed in the lug c^3 at that end of the bracket.

Referring to Fig. 4, it will be clear that rotation of the manipulating device c^2 in the direction of the arrow thereon will cause the positioning device c to be forced bodily back against the rear or right-hand wall of the groove in the standard, thereby causing the bracket itself to be moved to the left, Fig. 4, to cause its lug or projection b' to contact with the opposite side wall of the groove in the standard, the two coöperating to firmly hold or position the bracket in any position into which it may have been moved. By slackening the manipulating device the clamp is released sufficiently to enable the bracket to be vertically adjusted on the standard.

If the manipulating device be rotated or released sufficiently, the positioning device may be moved to the left (see Fig. 4) to such an extent as to admit of the entire removal of the bracket from the standard.

It will be noticed that the positioning device is so shaped as to cause the end of the manipulating device to act in direct line with the clamping-surface acting upon the wall of the groove in the standard.

In accordance with another part of my invention the brackets on the two standards, constituting a single pair, Figs. 1 and 2, are provided at their inner faces with suitable sockets or bearings b^3 for the journals of the supporting-rollers d , said rollers being at their ends journaled directly in bearings on and adjustable with the brackets b , the rollers constituting the shelf or support for the books.

To prevent the brackets b moving toward each other sufficiently to clamp and retard the rotative movement of the rollers, I have provided the interposed struts e at opposite ends of the brackets, which maintain the latter always at a proper separated distance.

In the construction shown the strut e at the left (see Figs. 3 and 4) enters at its ends suitable sockets in the brackets, it being possi-

ble to spread the latter sufficiently to enable the ends of the strut to be introduced into said sockets, but at the opposite ends of the brackets—that is, at the right, Figs. 3 and 4—the sockets are made open at their upper sides to enable the strut to be dropped into position after the brackets have been set in fixed position. The brackets are also shown as provided at their inner sides with the vertical rollers f , journaled at their ends in suitable bearings f' , formed on or in the said brackets to prevent contact of the books with the surfaces of the brackets.

At their inner ends the brackets b are shown as provided with suitable stops g , shown as angle-pieces slotted at g' to receive the guide-pins g^2 and the clamping-bolt g^3 , the latter furnishing means by which to clamp the stops in desired adjusted position.

In banks or other offices having extremely large books the "roller-shelves," as they may be called, are spaced one above another to such a distance as will admit of the books being placed flatwise between the same, the flat sides or covers of the books rolling in upon the rollers d , the edges or ends of the books contacting with the side rollers f , the whole constituting a support upon which the books may be placed with the least effort and with the least consequent wear of the books.

Preferably there will be one shelf for each individual book, so that the stops g need be turned inwardly just sufficient to catch the book, but where several books are placed upon the same support or roller-shelf the book-stop g will extend from one to the other bracket.

I have herein shown the brackets as mounted centrally, or nearly so, upon the standard, portions of the brackets projecting both at the front and at the rear of the standards, but my invention is not limited in this respect, for the brackets may be positioned in any desired manner upon standards. Neither is my invention in other respects limited to the particular embodiment herein shown, for it is evident the same may be varied without departing from the spirit and scope of the invention.

I claim—

1. In an adjustable support, a standard, a plurality of brackets arranged one above another on said standard and means to adjust the relative vertical height of said brackets and to vary the relative distance between one and its adjacent bracket, combined with one or more vertical rollers mounted on the respective brackets, adjacent said standard and adjustable by and with said brackets, said rollers being of a length less than the minimum separation to which said brackets may be adjusted to thereby provide adjustment to accommodate books or devices of varying heights without change of said rollers, substantially as described.

2. In an adjustable support, a standard, brackets thereon in pairs, supporting-rollers

constituting a shelf journaled at either end in the adjacent bracket, and book-stops in the form of angle-irons secured to said brackets and independent of the shelf and bent outwardly therefrom to engage and stop the books rested on said rollers, substantially as described.

3. In an adjustable support of the class described, the combination with a standard having substantially parallel engaging surfaces, of a bracket adjustable on the said standards and provided with a projection to act against one of said engaging surfaces, and a positioning device, movable past and overlapping said projection, and means to adjust the same past said projection in contact with the other of said engaging surfaces, the same being provided with manipulating means external to the support, and furnishing means for holding the bracket in desired position, substantially as described.

4. In an adjustable support of the class described, the combination with a standard, provided with an undercut groove, of a bracket provided with a projection to enter and engage one of the walls of said groove, and a positioning device, and means to manipulate the same to engage the opposite wall of said groove to retain the bracket in desired position, said means being external to said support and said bracket, substantially as described.

5. In an adjustable support of the class de-

scribed, the combination with a standard, and a bracket adjustably mounted thereon, of a positioning device loosely mounted on the said bracket, and a manipulating-screw carried by the bracket and adapted to act upon and move said positioning device to hold said bracket in adjusted position, substantially as described.

6. In an adjustable shelf-support, the combination, with a standard, and a bracket adjustably mounted thereupon, of a positioning device mounted to slide in said bracket and adapted to engage the standard and hold the bracket in adjusted position, and a manipulating device extending along the bracket and provided at its free end with means for hand-operating the same, said manipulating device cooperating with the said positioning device, partial release of the manipulating device releasing the positioning device sufficiently to permit adjustment of the bracket, fuller release of the said manipulating and positioning devices permitting the bracket to be entirely removed from the said standard, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

DAVID E. HUNTER.

Witnesses:

FREDERICK L. EMERY,
LAURA S. MANIX.