

(No Model.)

2 Sheets—Sheet 1.

D. H. McPHERSON.
BOOK SUPPORT.

No. 477,018.

Patented June 14, 1892.

Fig. 1.

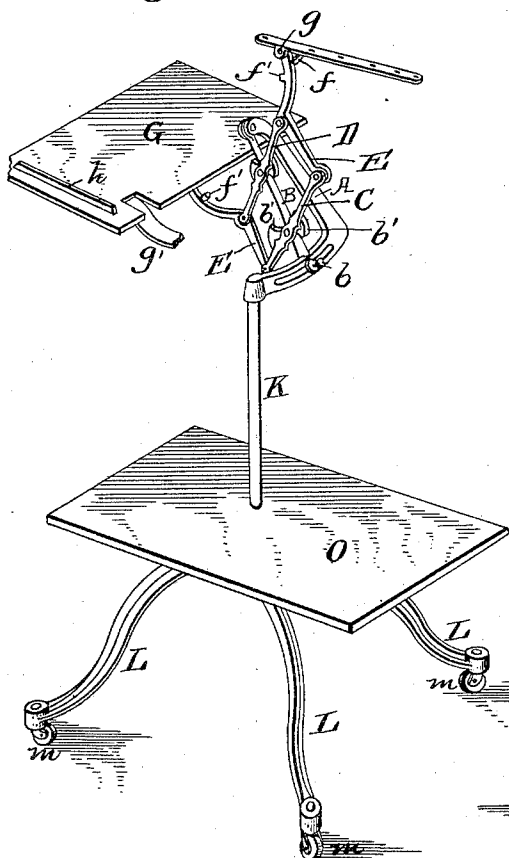


Fig. 3.

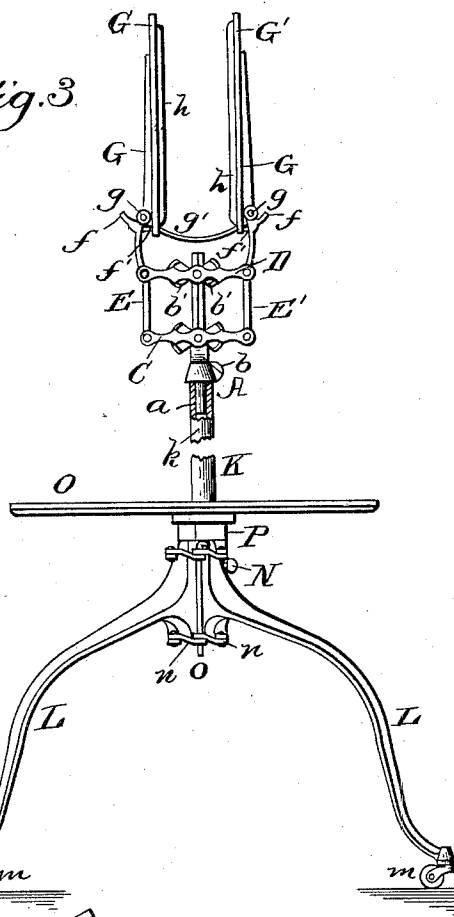
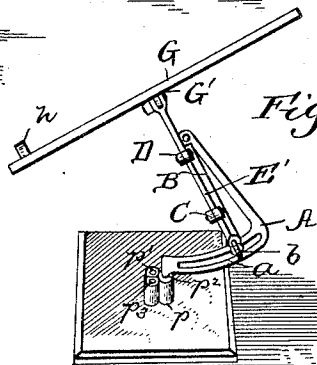


Fig. 2.



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(No Model.)

2 Sheets—Sheet 2.

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Fig. 4.

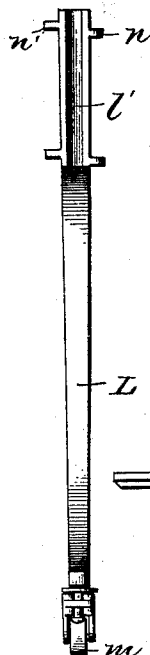


Fig. 6.

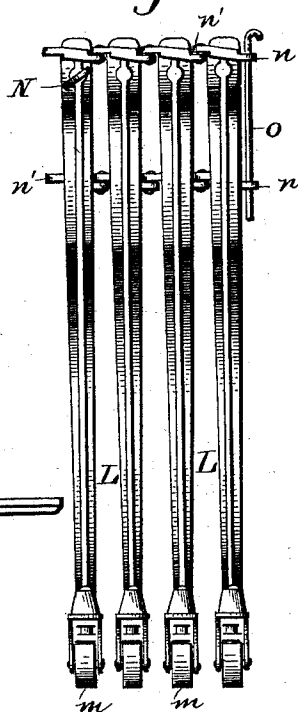


Fig. 5.

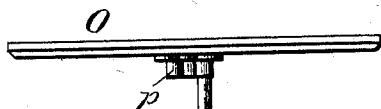
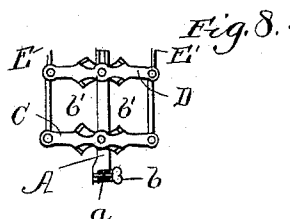
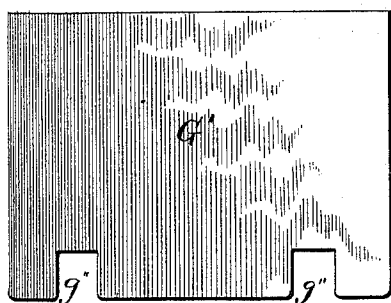


Fig. 7.



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UNITED STATES PATENT OFFICE.

DONALD H. MCPHERSON, OF LE ROY, NEW YORK.

BOOK-SUPPORT.

SPECIFICATION forming part of Letters Patent No. 477,018, dated June 14, 1892.

Application filed August 28, 1891. Serial No. 403,996. (No model.)

To all whom it may concern:

Be it known that I, DONALD H. MCPHERSON, a citizen of the United States, residing at Le Roy, in the county of Genesee and State of New York, have invented certain new and useful Improvements in Book-Supports; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in devices for supporting books; and the objects of the invention are, first, to provide a simple, strong, and inexpensive book-support which will keep the leaves of the book placed thereon flat no matter where it may be opened; secondly, to provide a book-support which can be used as a book-stand, resting on the floor and holding a dictionary or similar book, and also as a support for account-books, ledgers, Bibles, &c., on a desk or pulpit, and, finally, to provide a book-support which when not in use can be compactly folded.

With these ends in view my invention consists in the combination, with an angular frame adapted to be mounted on a suitable base or standard and provided with a segmental slot in its lower member, of a depending bar pivoted at one end to the angular frame near the upper end thereof, a set-screw passing through the slot in the lower member of the angular frame and engaging with said bar, two cross-bars pivotally connected to the depending bar, vertical bars or links connecting the ends of said cross-bars and extending above the same, and supporting arms or plates pivotally connected to said vertical arms and resting when open on short upwardly-extending lugs or projections formed thereon.

My invention further consists in a support or standard composed of a series of legs each provided with a vertical bar near its upper end, the faces of said bars being grooved longitudinally and having projecting lugs or ears at both ends, pivots for uniting the adjacent ears or lugs on said legs, one of which pivots is removable, a vertical rod fitted between the faces of the vertical bars on the legs, and a set-screw working through one of the legs and bearing against the rod to hold the same at any desired elevation.

My invention further consists in the peculiar construction and arrangement of parts, as will be hereinafter more fully described and claimed.

To enable others to more readily understand my invention I have illustrated the same in the accompanying drawings, in which—

Figure 1 is a perspective view of a book-support constructed in accordance with my invention, one of the carrying-boards being removed. Fig. 2 is a side view showing my improved support adapted for use on a desk. Fig. 3 is a view showing the position of the parts when the book is closed. Fig. 4 is a detail view of one of the legs of my improved support. Fig. 5 is a view of a table formed by my improvements. Fig. 6 is a view of the legs folded for storing. Fig. 7 is a detail view of one of the book-carrying plates, and Fig. 8 is a detail view of the mechanism for the adjustment of the inclination of the book-holder.

Like letters of reference denote corresponding parts in all the figures of the drawings, referring to which—

A designates the angular frame of my improved support, which is provided with a depending stud or pin *a'*, secured to or made integral with the lower member of such angular frame and adapted to be fitted on a suitable base or standard, as will be hereinafter fully described. The lower arm of the angular frame is provided with a segmental slot *a*, and the outer end of the upper member of such frame is slotted or bifurcated for a short distance. In such slotted portion is pivoted a depending bar B, which is reduced in width near its lower end to pass along the side of the lower member of the frame A, and through the slot in said member is passed a thumb-screw *b*, which fits in a threaded passage in the depending bar B. Said bar B is also provided with bearing-plates *b'*, which extend on both sides of the vertical bar near the upper and lower ends thereof.

To the bar B are pivotally connected cross-bars C D, which contact with or bear against the bearing-plates, and the outer ends of these cross-bars are pivotally connected to vertical members or links E E', which extend upwardly above the cross-bar D. The members E E' are curved slightly from their point of

connection with the cross-bar D to their upper ends, and such members near their upper ends are provided with outwardly-extending lugs *f*. On the inner curved faces of the members E E' are formed stops *f'* for a purpose to be hereinafter described.

Near the upper ends of the bars E E' are connected by pivots *g* supporting-arms G, to which are attached by screws or in any other suitable manner plates G'. The plates G' are connected by means of straps *g'*, which are attached to the under side of said plates in rear of notches *g''*, formed in the adjacent inner edges of the plates. On the upper surface of the plates G', near one end thereof, are fastened cleats *h* to prevent the book from sliding off. It will be seen by reference to Fig. 3 that the back of the book does not extend below the lower edges of the plates G' when the book is closed and that the said plates bear against the stops *f'* near their lower ends and are maintained in a vertical position.

A book placed on the support has its curved back supported by the straps *g'* and its sides rest on the plates G'. Should the book be opened, so that the weight on one side of a central line is greater than the weight on the other side of said line, the pivoted frame automatically moves and both exposed pages of the book are kept horizontal. To vary the angle or inclination of the book the thumb-screw *b* is turned and the depending bar B turned on its pivot until the book is in the desired position, when the thumb-screw is again turned to hold the parts in their new positions. When the book is closed, the weight falls on the strap *g'* and the plates G' are forced against the sides of the book and held in place by the weight of the book.

In Fig. 1 I have shown my improved book-support mounted on a standard K, which consists of a vertical tube or pipe *k*, in the upper end of which is placed the depending stud or pin *a'* on the angular frame A. The lower end of the tube or hollow standard *k* is fitted in a socket *l*, formed by longitudinally-grooved bars *l'*, attached to the legs L of the stand. Each leg is provided with a roller or caster *m*, and to each of said legs is secured or cast integral therewith a short vertical bar *l''*, the face of which is grooved longitudinally, and said bars are provided at both ends with projecting lugs or ears *n n'*, the lugs or ears *n* being in a plane lower than the plane of the lugs or ears *n'* on the opposite sides of the bars *l''*. The legs are connected together by lapping the lugs *n'* over the lugs *n* on the adjoining leg and passing short rivets or pivot-pins through such lapped ears. Two of the legs, however, are detachably connected together on one side by passing a locking-rod *o* through suitable aligned passages in the adjacent overlapping ears on such legs. A set-screw N extends through one of the legs and bears at its inner end against the tube or standard *k* to hold the same at any desired

elevation. The tubular standard *k* passes through a flat board or shelf O and a casting *p*, secured to the under side thereof, the lower end of said casting resting on the upper edges of the legs, and thus holding the shelf O in position. The casting *p* is preferably made with three sockets *p' p² p³*, one of which *p'* aligns with the passage in the shelf O, through which the tubular standard *k* extends.

When it is desired to use the book-support on a desk or table, it is detached or lifted clear of the tubular standard *k* and the shelf O also removed from such standard. The shelf is then laid on the desk or table and the stud or pin *a'* seated in the socket *p²* of the casting *p*, as shown in Fig. 2 of the drawings. If desired, the end of the tubular standard *k* can be inserted in the socket *p³* and a small table thus formed, as shown in Fig. 5.

When the stand is not in use, the support proper can be detached from the tubular standard *k*, the standard *k* removed from the socket *l*, and by removing the locking-rod *o* the legs can be turned on their pivots into the position shown in Fig. 6, and the whole packed or stored away in a small space.

The advantages of my invention will be readily understood and appreciated from the foregoing description taken in connection with the drawings.

I am aware that changes in the form and proportion of parts and details of construction of the devices herein shown and described as an embodiment of my invention can be made without departing from the spirit or sacrificing the advantages thereof, and I therefore reserve the right to make such changes and alterations as fairly fall within the scope of my invention.

I am aware that it is not new to connect carrying-plates adapted to always lie in the same horizontal plane and having the inner edges meeting when opened by straps, and such construction I disclaim.

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

1. In a book-support, the combination, with a base or support, of an angular frame provided with a depending stud or pin, a depending bar attached to said frame, cross-bars carried by said depending bar, links connecting the ends of said bars, and carrying-plates connected to said links, substantially as described.

2. In a book-support, the combination of the angular frame adapted to be secured on a suitable base or standard, a depending bar pivoted at its upper end to said angular frame, a thumb-screw fitted in a segmental slot in the lower member of the angular frame and in the depending bar, cross-bars pivotally connected to the depending bar, links connecting said cross-bars, and carrying-plates pivotally connected to said links, substantially as described.

3. The combination of the angular frame

adapted to be mounted on a base or standard and having a segmental slot formed in its lower side, the depending bar pivotally connected at its upper end to said frame, the bearing-plates carried by said bar, the set-screw for connecting the depending bar and the lower member of the angular frame, the cross-bars pivoted on the depending bar and contacting with the bearing-plates, the members connecting the outer ends of said cross-bars, and the carrying arms or plates pivotally connected to the upper ends of said members, substantially as described.

4. A support or stand having the inner faces of its legs grooved or recessed near their upper ends to form a socket for a standard and having the ears or lugs projecting on opposite sides and pivots connecting adjoining lugs or ears on the legs, one of said pivots being removable, whereby the legs can all be turned on the pivots, so as to lie in the same plane, substantially as shown and described.

5. A support or standard having the inner faces of its lugs grooved or recessed to form a socket and having the projections or lugs on opposite sides thereof, the lugs on opposite sides being in different horizontal planes,

whereby the lugs on adjacent legs overlap, and pivots connecting such overlapping lugs, substantially as shown and described, for the purpose specified.

6. The combination of the angular frame, the depending bar pivotally connected to said frame, the thumb-screw fitted in a segmental slot in the lower member of the angular frame and in the depending bar, the cross-bars pivoted on said depending bar, the members connecting the outer ends of the cross-bars, said members being curved outward slightly from a point above the upper cross-bar, the projecting lug or studs on said members near the upper ends thereof, the supporting-arms pivotally connected to the upper ends of said members, the carrying-plates secured on said supporting-arms, and the straps connecting said plates, substantially as shown and described.

In testimony whereof I affix my signature in presence of two witnesses.

DONALD H. MCPHERSON.

Witnesses:

JOHN P. P. LATHROP,
E. W. PARMELEE.