C. H. BARTLETT.

BOOK HOLDER.

APPLICATION FILED DEC. 20, 1913.

1,253,568.

Patented Jan. 15, 1918.

2 SHEETS—SHEET 1.

Fig. 1.

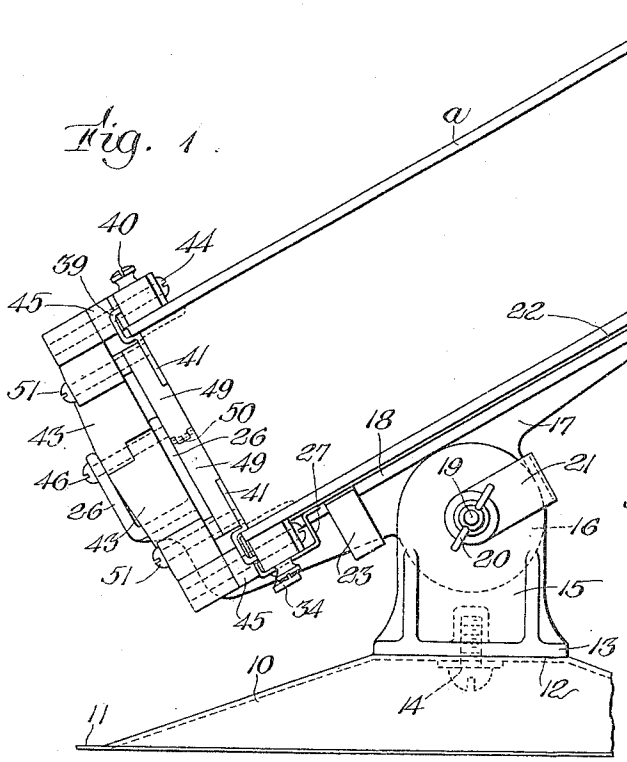


Fig. 5.

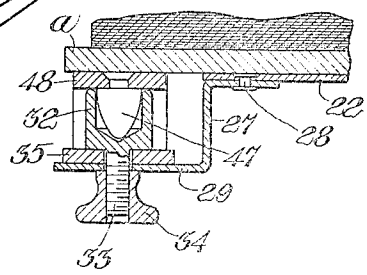


Fig. 8.

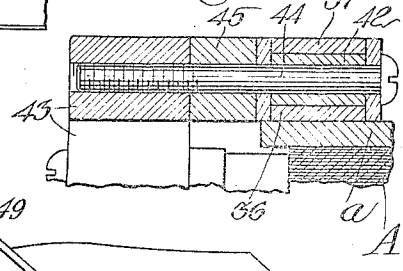
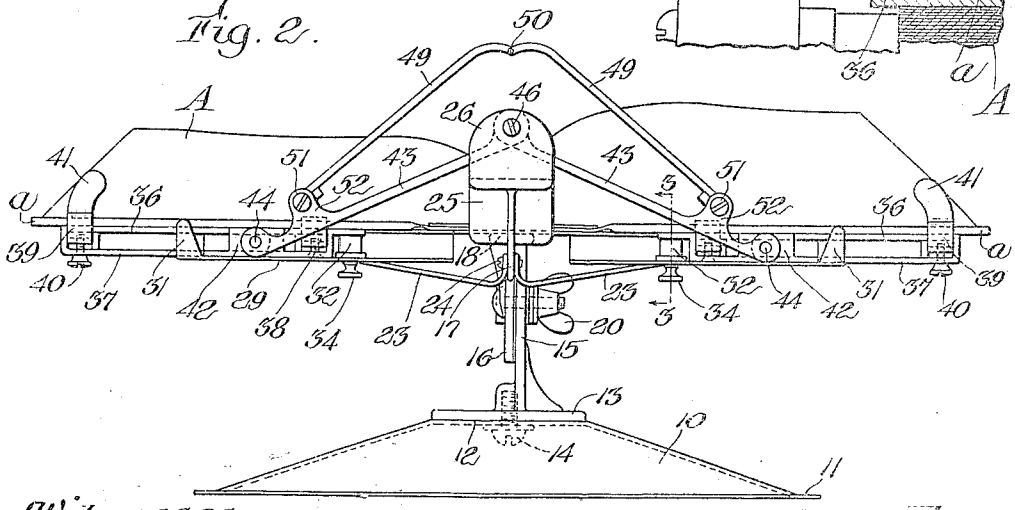


Fig. 2.



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2 SHEETS—SHEET 2.

Fig. 4.

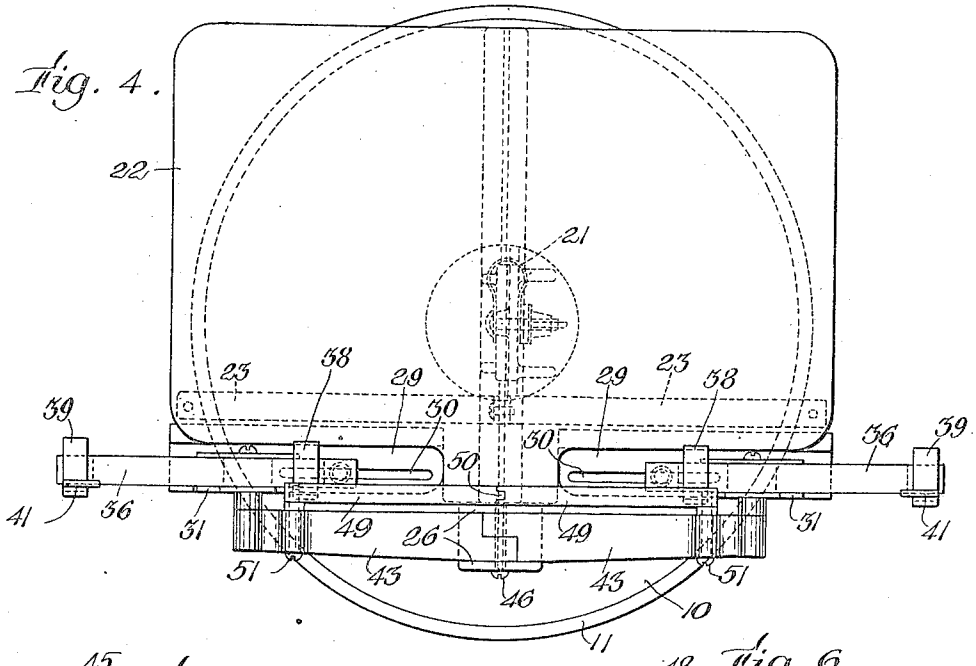


Fig. 5.

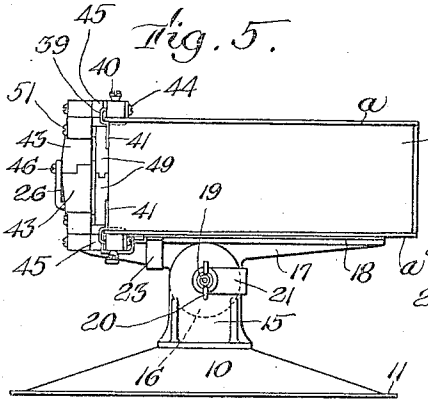


Fig. 6.

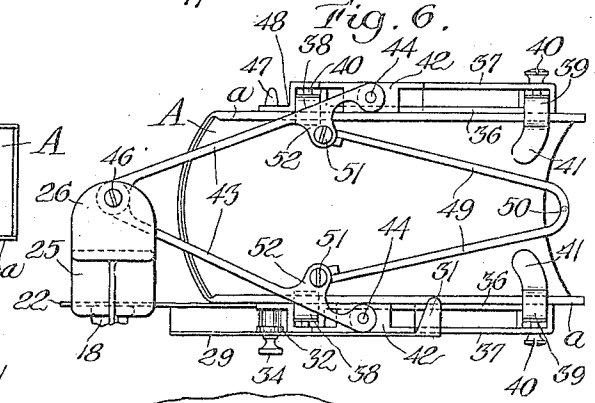
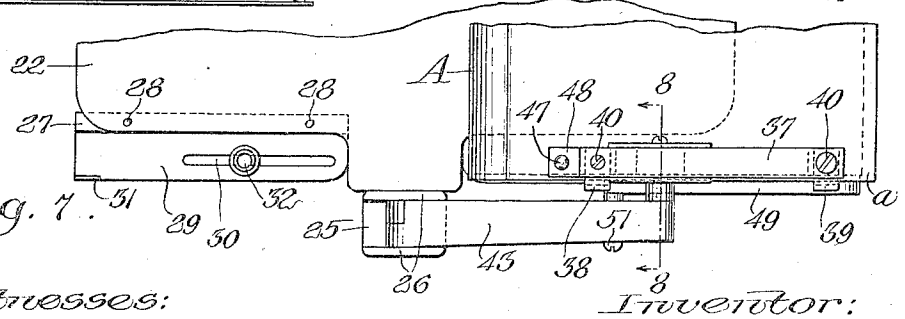


Fig. 7.



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UNITED STATES PATENT OFFICE.

CHARLES H. BARTLETT, OF CAMBRIDGE, MASSACHUSETTS.

BOOK-HOLDER.

1,253,568. Specification of Letters Patent. Patented Jan. 15, 1918.

Application filed December 20, 1913. Serial No. 807,907.

To all whom it may concern:

Be it known that I, CHARLES H. BARTLETT, a citizen of the United States, and a resident of Cambridge, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Book-Holders, of which the following is a specification.

This invention relates to holders for supporting books in opened or closed positions, and the object of the present invention is to provide such a device especially adapted for large books such as dictionaries, city directories, etc.

The improved holder is constructed so as to hold the book on either one side or the other, or to present it opened or closed, at any angle from the horizontal to nearly a perpendicular position, the construction being such as to permit the book to be opened from right to left or from left to right to any extent desired, means being also provided to relieve the binding from any strain from the weight of the leaves and to sustain the leaves at all times in their proper positions without any sagging, curling or folding.

The invention consists in the means which I shall now proceed to describe and claim.

Of the accompanying drawings:

Figure 1 is a side elevation of my improved bookholder in one of its embodiments, a book being shown in position but closed toward the point of view;

Fig. 2 is a front elevation with the platform in horizontal position instead of being tilted, and with the book open;

Fig. 3 represents a section on line 3—3 of Fig. 2, on a larger scale;

Fig. 4 is a plan view of the holder, omitting the book, and with the parts in the positions in which they are represented in Fig. 2;

Fig. 5 is a view similar to Fig. 1, on a smaller scale, and with the platform in horizontal position;

Fig. 6 is a view similar to a portion of the device shown at the right in Fig. 2, but with the book closed;

Fig. 7 is a view similar to a portion of Fig. 4, but with the parts in the position which they occupy in Fig. 6, the book being closed;

Fig. 8 represents a detail section on line 8—8 of Fig. 7, on a larger scale.

Similar reference characters indicate similar parts in all of the views.

The base 10, preferably of sheet metal having the shape of a truncated cone, has a flat rim 11 to enable said base to rest upon a desk or other surface without marring the latter. The central raised flat portion 12 supports a disk 13, a connecting screw 14 retaining these parts in position but enabling the disk 13 and all of the mechanism above it to be rotated relatively to the base. In other words, the screw provides a swiveled connection between the base and the superstructure. Rising from the disk 13 is an upright 15 to which is pivotally connected an ear 16 extending downwardly from the strengthening rib or web 17 of the center bar 18 of the platform. A bolt 19 passing through the ear 16 and upright 15, and held in position by a wing nut 20, provides a pivotal connection which enables the book platform to be shifted to horizontal or inclined position, as indicated by comparing Figs. 1 and 5. Any suitable friction material may be interposed between the faces of the ear 16 and upright 15, and by manipulating the wing nut 20 in a well understood manner, the friction may be increased or diminished as may be desired to enable the book platform to be conveniently tilted more or less, and secured in the desired adjustment. To prevent the wing nut from shifting from the position given to it, I provide a suitable nut lock such as a strip 21 (Figs. 1 and 4) connected at one end to the head end of the bolt so that the bolt cannot rotate relatively to the strip, the other end of said strip engaging the inner face of the nut 20 to prevent said nut from becoming loosened accidentally. I do not claim the nut lock herein, as any other suitable means may be provided for holding the nut in its adjusted position, and therefore I do not illustrate all of the details of the nut lock.

The platform 22, which may consist, as indicated in Fig. 4, of substantially rectangular-shaped metal having a flat book-supporting upper surface, is suitably secured at its mid-width, as by brazing or rivets or otherwise, to the bar 18, said platform being strengthened by struts 23 having their inner

bent ends secured as by a screw or bolt 24 (Fig. 2) to the web 17 of the bar 18, the outer ends of the struts being secured to the under surface of the platform, preferably by rivets, as indicated in Fig. 4.

One end of the bar 18 is formed with an upwardly projecting bracket having ears 26 (Figs. 2 and 4) between which are pivoted the slide-controlling arms hereinafter described.

What may be referred to as the lower edge of the platform, because it is the edge which is lowest when the platform is tilted in the proper direction for reference to a book mounted thereon, is provided with brackets 27 (Figs. 3 and 7). These brackets might be integral portions of the platform, but for convenience of manufacture they comprise separate plates bent to shape and secured to the platform by suitable means as by rivets 28. Each of said brackets includes a flange 29 below and parallel with the plane of the platform 22, said flange 29 having a slot 30, the object of which will be presently explained. At the outer end of the flange 29 is an upturned ear 31, the chief purpose of which is to facilitate the proper location of the book preparatory to securing it to the book holder as hereinafter described. Said ears 31 project far enough above the plane of the platform 22 to engage the lower edge of the cover *a* of the dictionary or other book A, as indicated in Fig. 2.

I will now describe the means illustrated which restrain the book covers from lateral movement when the book is open or when it is closed either to the right or to the left on the platform. Said means comprise projections or studs 47 carried by the clamps which are engaged with the book cover, which projections or studs, as hereinafter described, removably fit sockets 32 which are adjustably supported by the flanges 29 (Figs. 3 and 7). Each of the two sockets 32 has a threaded stem 33 projecting through the slot 30 in flange 29, and having a nut 34 engaged with it below said flange. Preferably I employ one or more washers 35 interposed between the bottoms of the socket studs and the flanges 29. By means of the nuts 34 the socket studs 32 may be adjusted toward or from the mid-width of the platform according to the thickness of the book. As hereinafter described, the projections or studs 47 which engage the sockets are rigidly connected to the covers of the book. The thicker the book the greater the width of the back binding thereof. The back binding of the book occupies the mid-width of the platform when the book is open. Therefore the two projections or studs carried by the covers of the book will be a greater or lesser distance apart when the book is open, as in Fig. 2, according to the thickness of the book when the book is closed. By adjusting the socket studs along the flanges 29, they can be secured in just the right positions so that the interengaging projections hereinafter described, carried by the book covers, will enter the sockets when the book is open as in Fig. 2, and absolutely prevent any lateral shifting of the book. When the book is closed either to the right or left, the interengagement of the members referred to will prevent any lateral shifting of the book relatively to the platform.

To provide sliding connections between the pivoted arms hereinafter described and the covers of the book, I provide guides which are clamped to the lower edges of the book covers *a*. Each of these guides comprises an inner strip 36 which is clamped against the outer surface of the book cover *a*, and an outer parallel strip 37, these two strips being either integral with each other or formed of separate pieces secured together. These guides are secured to the book covers by clamps 38, 39, the clamps 38 being referred to as the inner clamps, since they are nearer the mid-width of the book when open, and the clamps 39 being referred to as the outer clamps. Each clamp consists of a U-shaped strip, one end of which extends in between the guide strips 36, 37, the other end being adapted to engage the inner surface of the book cover *a*, between said book cover and the first leaf of the book. The portion of the U-shaped clamp strip which extends between the guide strips 36, 37, has a threaded aperture to which a screw 40 is fitted, the screw passing loosely through a hole in the guide strip 37 and bearing at its inner end against the guide strip 36 so that, by actuating the screw 40 in the proper direction, the portion of the clamp which extends in between the book cover *a* and the leaves of the book will be brought down tightly against the book cover. It will now be understood that each book cover *a* has its lower edge clamped between the guide strip 36 and portions of the clamps 38, 39.

The clamps 39 are shown as provided with ears 41 which are set in from the outer portions of the clamps which embrace the edges of the covers *a*, as clearly shown in Fig. 1, said ears 41 having their inner faces in a plane sufficiently inside of the extreme edges of the covers *a* to support the leaves which are nearest to the book covers, when the book is open. In Fig. 1 the book is shown as closed, and in Fig. 2 the book is open. If the platform is horizontal leaf-edge supporters are not necessary, but when a book is open as in Fig. 2, and the platform is tilted as in Fig. 1, the leaves of the book are liable to sag in a well known manner. As hereinafter described, I provide leaf-edge supporters which are hinged and especially support the majority of the leaves of the book. I find it

desirable however to employ the additional leaf supporters 41.

Fitted to slide between the guide strips 36, 37, are blocks 42 (Figs. 2 and 8), said blocks having means for retaining them in sliding engagement with the guides. Two arms 43 connect the two slide blocks with the platform. Each arm 43 has its outer end provided with an aperture internally threaded to receive the end of a screw 44 which passes through the slide block and through a spacing collar 45. The two screws 44 provide pivotal connections between the outer ends of the two arms 43 and the slide blocks, while the spacing collars 45 insure the existence of sufficient space between the arms and the book to permit of the operation of opening and closing the book as hereinafter described. The meeting inner ends of the two arms 43 are each half cut away and overlapped, as indicated in Fig. 7, and pivotally mounted upon a pivot pin 46 supported in the ears 26 on the platform bracket 25, said pivot pin being offset upwardly from the plane of the book-supporting surface of the platform.

As shown by comparing Figs. 6 and 7, a tapered stud or projection 47 is carried by a bracket 48 at the inner end of each guide that is clamped to the book cover. These tapered studs or projections 47 engage the socket studs 32 when the book is open as in Fig. 2 and prevent any possibility of the book slipping. When the book is closed as in Fig. 6, one stud 47 remains in engagement with a socket stud 32.

Leaf supporting links 49, jointed together at 50, are mounted upon pivots 51 carried by ears 52 of the arms 43. The inner edge of this jointed leaf supporter formed by the links 49 is in position, as shown in Fig. 1, to support the leaves of the book without any possibility of their sagging to the slightest extent. This is because the said inner edge, like the inner faces of the leaf supporting ears 41, is offset inwardly from the arms 43 and is inside of the plane of the edges of the book covers. Obviously, with a comparatively thin book, the jointed leaf supporter 49 might be dispensed with, the leaf supporting ears 41 being, in such case, of a length sufficient to hold the leaves against sagging. These leaf supporters are designed especially with reference to books having stiff covers. All books with stiff covers are so made that the edges of the covers project considerably beyond the edges of the leaves. As shown in Fig. 1, the jointed leaf supporter 49 and also the leaf supporting ears 41 extend inwardly to a plane inside of the plane of the book cover edges.

In use, a book is placed upon the platform with the lower edges of its covers close to the ears 31 (Fig. 2), and the portions of the clamps 38, 39, which are adapted to project into position overlapping the inner surfaces of the book covers, are caused to clamp the book covers, by operation of the clamp screws 40, as hereinbefore described. Then the book is adapted to be closed either to the right as shown in Fig. 6, or over to the left, the platform having an area to support the book in either one of the positions mentioned. During the opening or closing of the book, one or the other of the slide blocks must shift along the guide strips, in order to retain the parts in their operative positions without interfering with the opening or closing. In effect the two links or members of the jointed leaf supporter 49 are pivotally connected to the clamps which are engaged with the book covers, because they are pivoted to the ears 52 of the arms 43, and the latter are pivotally connected at 44 with the sliding portions of the clamps. Therefore the jointed leaf supporter 49 will always be in position to support all of the leaves of the book excepting possibly a few of the leaves nearest to the covers, whether the book is opened at the middle or almost all of the leaves are turned over to the right or the left.

Having described my invention, I claim:

1. A book-holder comprising a platform having a substantially flat book-supporting surface, adapted to support a book when open or when closed either to the right or to the left, and a fixed bracket projecting upwardly from the central portion of one of its edges, a pair of book-cover-confining arms having meeting inner ends pivoted to said bracket at a common point which is offset upwardly from the plane of said supporting surface, and means for establishing sliding pivotal connections between the outer ends of said arms and the two covers of a book, said arms being adapted to connect the two covers with the bracket and confine the book against displacement on the platform, whether the book be open or closed either to the right or to the left.

2. A book-holder comprising a platform having a substantially flat book-supporting surface, adapted to support a book when open or when closed either to the right or to the left, and a fixed bracket projecting upwardly from the central portion of one of its edges, a pair of book-cover-confining arms having meeting inner ends pivoted to said bracket at a common point which is offset upwardly from the plane of said supporting surface, a pair of elongated guides attachable in alinement with each other to corresponding end portions of the two covers of a book, and slides movable in said guides and pivoted to the outer ends of said arms.

3. A book-holder comprising a platform having a substantially flat book-supporting surface, adapted to support a book when

open or when closed either to the right or to the left, and a fixed bracket projecting upwardly from the central portion of one of its edges, a pair of book-cover-confining arms having meeting inner ends pivoted to said bracket at a common point which is offset upwardly from the plane of said supporting surface, means for establishing sliding pivotal connections between the outer ends of said arms and the two covers of a book, and a leaf edge supporter composed of two links having meeting inner ends pivoted to each other, and outer ends pivoted to said arms, the inner edges of said links being offset inwardly from the arms and arranged to bear on the edges of the leaves of an open book and prevent said leaves from sagging.

4. A book holder comprising a single substantially flat platform having an area to support a book when open or when closed to the right or left, clamps for connection with the covers of a book, guides engaged with said clamps, slides movable in said guides, movable connections between said slides and platform, and a leaf-edge supporter comprising two links pivotally connected to each other and to the slides and free to swing with the covers of the book, said members being formed and mounted to present supports for the leaves when the book is either partly or wholly open.

5. A book holder comprising a book rest or platform having recessed members adjacent its front edge, and projections adapted to enter the recesses of said members when the book is open, said projections having means for securing them to the covers of a book, whereby the cover members will be restrained from lateral movement when open.

6. A book holder comprising a platform having adjustable sockets, and cover clamps having projections adapted to enter said sockets when the book is open.

7. A book holder comprising a platform, means for connecting a book with said platform, said connecting means being movable to permit the book to be supported by the platform when closed to the right or left, and adjustable devices for restraining the book covers from lateral movement when the book is open or when it is closed to the right or to the left.

In testimony whereof I have affixed my signature, in presence of two witnesses.

CHARLES H. BARTLETT.

Witnesses:
A. W. HARRISON,
P. W. PEZZETTI.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."