(No Model.)

W. G. BROWNELL.

BOOK HOLDER.

No. 551,179. Patented Dec. 10, 1895.

Fig. 1.

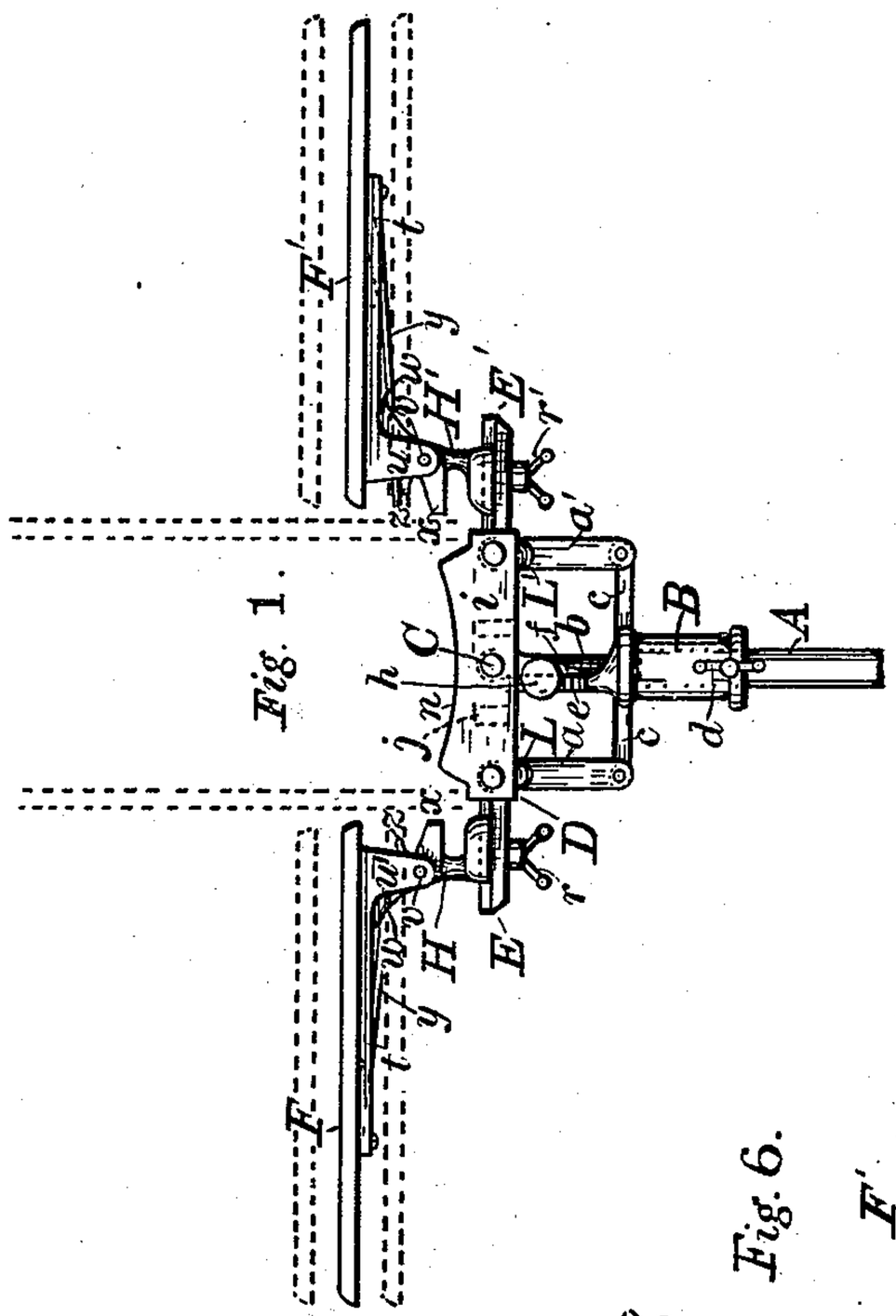


Fig. 2.

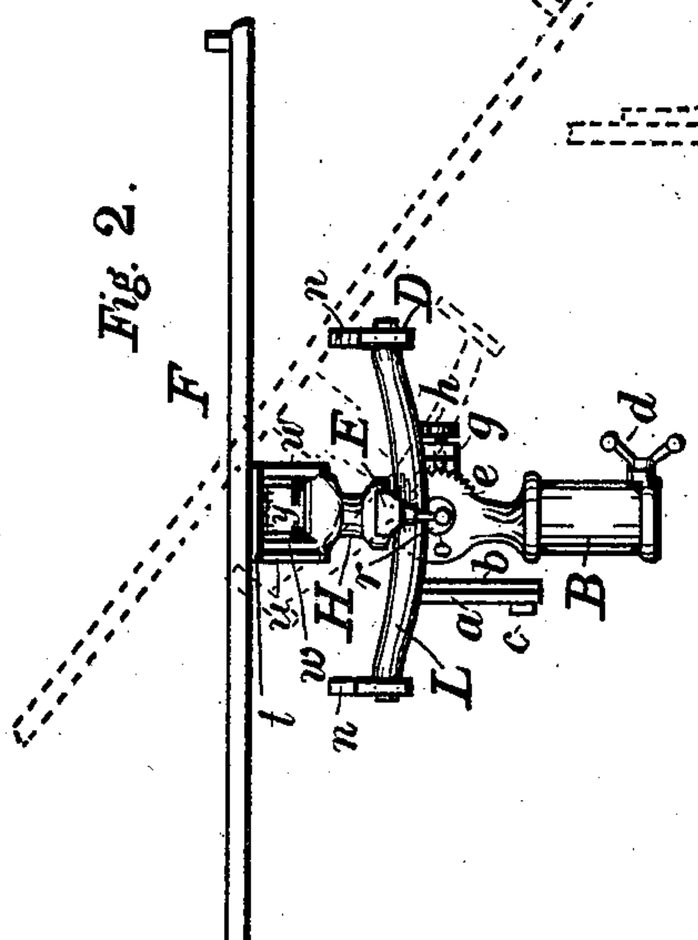


Fig. 3.

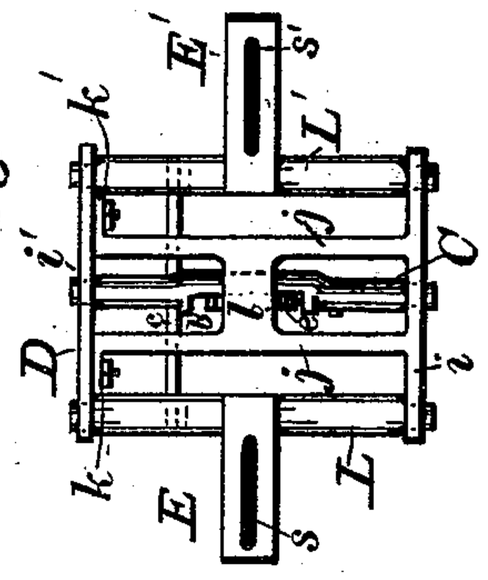


Fig. 4.

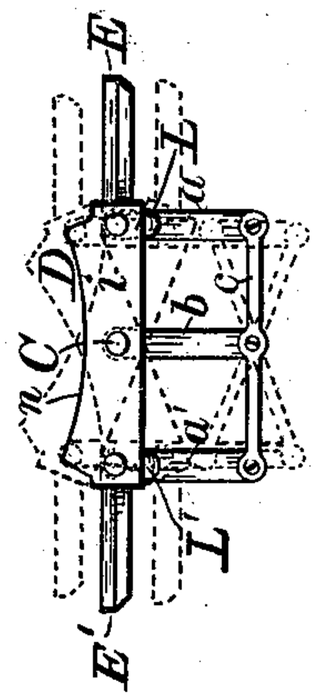


Fig. 5.

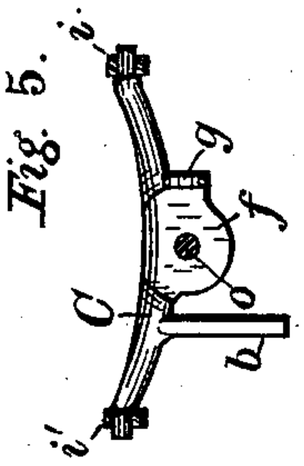
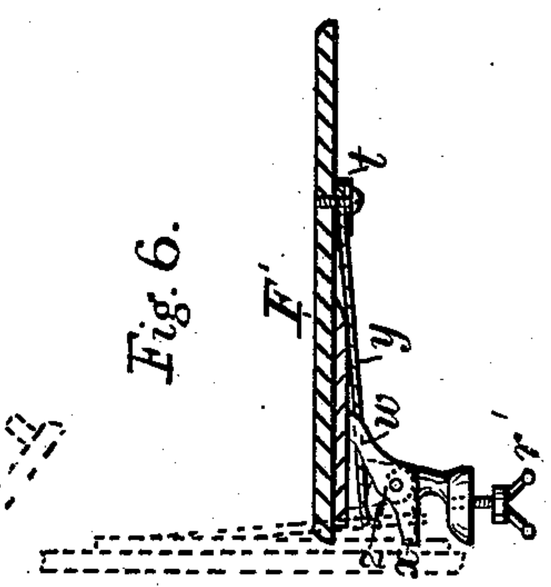


Fig. 6.



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UNITED STATES PATENT OFFICE.

WILLIAM G. BROWNELL, OF ROCHESTER, NEW YORK.

BOOK-HOLDER.

SPECIFICATION forming part of Letters Patent No. 551,179, dated December 10, 1895.

Application filed November 7, 1894. Serial No. 528,121. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM G. BROWNELL, a citizen of the United States, residing at Rochester, in the county of Monroe, in the State of New York, have invented certain Improvements in Book-Holders, of which the following is a specification, reference being had to the accompanying drawings.

My invention relates to certain improvements in book-holders, designed to support dictionaries, gazetteers, encyclopedias, or other large books for examination with the opposite pages on the same or substantially the same level.

My improvements are fully described and illustrated in the following specification and the accompanying drawings, the novel features thereof being specified in the claims annexed to the said specification.

In the accompanying drawings, representing my improved book-holder, Figure 1 is a front elevation. Fig. 2 is a side elevation. Fig. 3 is a plan view. Fig. 4 is a partial rear view. Fig. 5 is a side view of the central cross-bar. Fig. 6 represents the joint between the bracket and the leaf.

My improved book-holder consists essentially of an upright rod or standard A, a socket B thereon, carrying a cross-bar C, an oscillating frame D pivoted on the ends of the cross-bar, and the laterally-projecting arms E E′, which support the leaves F F′ by the brackets H H′ and are provided with arms *a a′*, connected together and to an arm *b* on the cross-bar by the link *c*, so that, while the leaves are permitted to adjust themselves in the vertical direction relatively to each other, they are always kept parallel with each other. Provision is also made for inclining the leaves, as indicated by the dotted lines in Fig. 2, by means of a joint-and-clamp screw.

The socket B is mounted on the upper end of the standard A, so that it can turn freely thereon, a clamping-screw *d* being provided, if desired. At its upper end the socket is provided with a suitable extension, which carries the notched disk *e*. The cross-bar C is provided with a corresponding disk *f*, Fig. 5, which is pivoted to the notched disk *e* by the stud or bolt *o*. The cross-bar C is also provided with a projecting threaded lug *g*, through which the screw *h*, Fig. 2, passes. This screw is used to adjust the leaves to any desired inclination, as indicated by the dotted lines in Fig. 2, the point of the screw being engaged with any one of the notches in the disk *e*.

The frame D is supported on the ends of the cross-bar C, so that it may swing freely thereon. The frame consists of an end piece *i*, Fig. 3, secured to the opposite end piece *i′* by one or more bars *j*, having feet *k* fastened to the bar *i′* by screws or bolts. The end pieces of the frame D are provided with openings into which the journals on the ends of the cross-bar C are fitted. They are also provided, at equal distances on each side the cross-bar, with openings for the journals of the bars L L′, which support the arms E E′. The separable frame D permits the parts to be conveniently put together.

The cross-bar C is provided with a dependent arm *b*, and each of the bars L L′ is provided with a corresponding arm *a a′*, and these arms are connected together by the link *c*, which is pivoted to each of the arms *a a′ b*. The consequence of this arrangement is that the arms E E′ and the leaves are held parallel to each other while moving up and down. This operation is represented by the full and dotted lines in Figs. 1 and 4.

When a book is placed on the leaves F F′, if opened near the front, the greater weight on the leaf F′ will depress it and raise the opposite leaf F in a corresponding degree, so that the opposite pages of the book will be brought to the same level. If the book is opened near the end, a corresponding action will take place, depressing E and F and raising E′ and F′, and producing a similar result. The cross-bar C is preferably bent downward slightly, so as to avoid the part *l* joining the bars *j j*. Each of the bars *i i′* is provided with a support *n* for the back of the book, as indicated in Fig. 1.

The brackets H H′ are arranged to slide on the arms E E′, to vary the distance between the leaves, by means of the clamp-screws *r r′* passing through the slots *s s′* in the arms and threaded into the brackets. The brackets are provided with projecting lips which engage the sides of the arms. The leaves may

be attached directly to the brackets; but in order to provide for holding them up, as indicated by the dotted lines in Fig. 1, to reduce the space occupied by the holder when not in use, I employ a hinge between the bracket and the leaf, and provide it with a spring which holds the leaf either open or folded up. To the under side of the plate is attached the plate *t*, which is provided with the lugs *u u'*, which engage the upper part of the bracket H and are pivoted thereon by the pin *v*. At one side the bracket H has a projecting arm *w*, located just inside the lug *u*, against which the plate *t* bears when the leaf is open, the arm *w* forming a stop or rest therefor. The bracket is also provided with another lug *x*, which acts as a stop against the plate *t* when the leaf is folded up. Another lug *z*, Fig. 6, serves to receive the pressure of the spring *y*, which is attached to the plate or the leaf, and serves to lock the leaf in either position. The spring is attached to the plate either directly or by being inserted through an opening with its end between the plate and the leaf, being secured in place by a screw or bolt.

The standard A is provided with any suitable feet or other means of sustaining it in the vertical position.

I am aware that coiled springs have been arranged approximately parallel with the hinge-pintles of back-supports in such manner that the springs operated oppositely according to the adjustment of the supports, said springs being combined with stops, and such devices are not herein claimed. The present improvement simplifies devices of this general character.

I claim—

1. The combination of the upright standard, the transverse cross-bar supported thereby and provided with the depending arm, the oscillating frame pivoted on the ends of the cross-bar, the side bars pivoted in the frame on each side of the cross-bar and provided with depending arms, the link connecting the depending arms, the book-holding leaves, and means for supporting the leaves upon the side-bars, substantially as described.

2. The combination of the upright standard, the transverse cross-bar supported thereby and provided with the depending arm, the oscillating frame formed of separable parts and pivoted on the ends of the cross-bar, the side-bars pivoted in the frame on each side of the cross-bar and provided with depending arms, the link connecting the depending arms, the book-holding leaves, and means for supporting the leaves upon the side-bars, substantially as described.

3. The combination of the upright standard, the transverse cross-bar supported thereby and provided with the depending arm, the oscillating frame formed of separable parts comprising the perforated end pieces connected together by an arm or brace,—the end-pieces being pivoted on the ends of the cross-bar,—the side-bars pivoted in the frame on each side of the cross-bar and provided with depending arms, the link connecting the depending arms, the book-holding leaves, and means for supporting the leaves upon the side-bars, substantially as described.

4. The combination, in a book-holder, of a leaf, the leaf-supporting bracket H, provided with oppositely arranged stops *w* and *x* and intermediate lug *z*, the plate *t* pivoted to the bracket and provided with spring *y*, and the leaf F attached to the plate, said spring and lug *z* being situated laterally with respect to the stops *w* and *x* and adapted to be in engagement either in the open or folded position of the leaf substantially as described.

5. The combination with the standard A, of the cross-bar C, having arm *b*, the separable frame D pivoted on the cross-bar and comprising the perforated end-pieces *i i'* and brace *j*, the pivoted side-bars L L', provided with arms E E' and *a a'*, and the connecting link *c*, substantially as described.

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