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F. H. HOFFMANN.

ADJUSTABLE BOOK SUPPORT AND COPY SPACER.

APPLICATION FILED DEC. 22, 1904. RENEWED JULY 19, 1907.

Fig. 1.

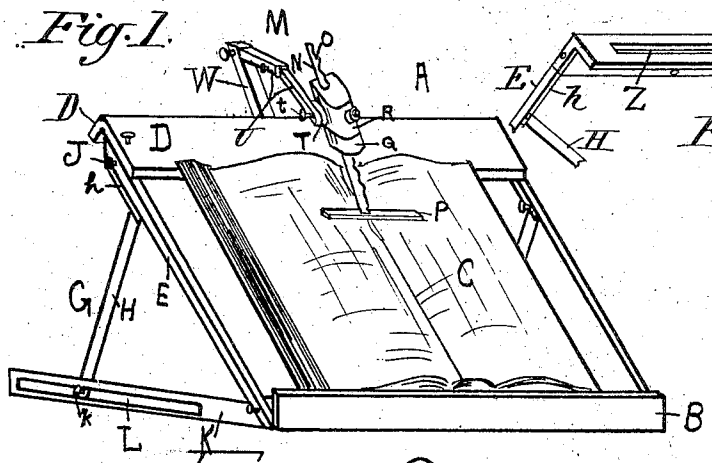


Fig. 7.

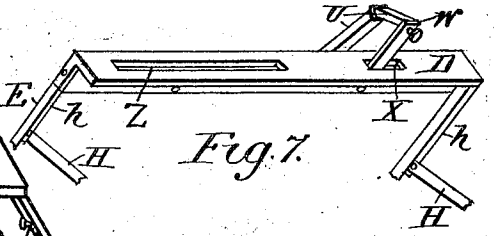


Fig. 2.

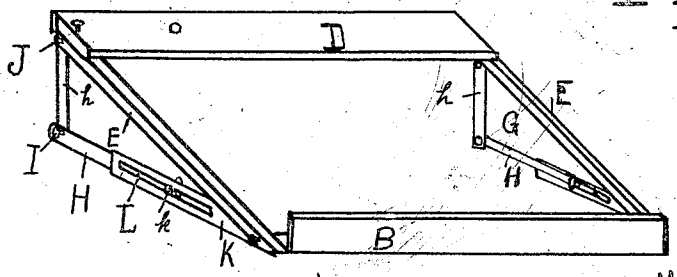


Fig. 5.

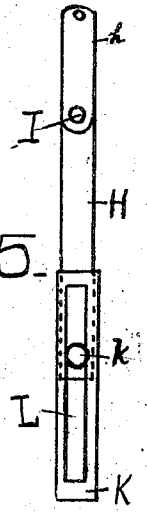
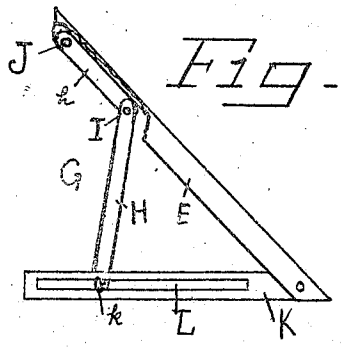


Fig. 6.



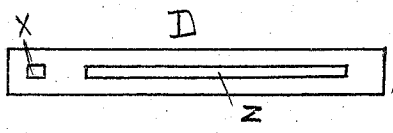


Fig. 3.

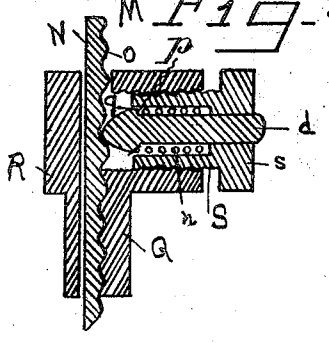


Fig. 4.

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ADJUSTABLE BOOK-SUPPORT AND COPY-SPACER.

No. 879,770. Specification of Letters Patent. Patented Feb. 18, 1908.

Application filed December 22, 1904, Serial No. 237,900. Renewed July 19, 1907. Serial No. 384,611.

To all whom it may concern:

Be it known that I, FRANK H. HOFFMANN, a citizen of the United States, residing in the city and county of Dubuque and State of Iowa, have invented certain new and useful Improvements in Adjustable Book-Supports and Copy-Spacers; and I do hereby declare the following to be a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to book supports with special reference to those for holding books from which the contents are to be copied; and the object is not only to provide an adjustable support adapted to vary the angle at which the book is to be sustained, but also to provide an adjustable spacer or guide to indicate the line to be copied.

The following specification will describe in detail the mode of constructing and manner of operating the same when taken in connection with the drawings accompanying the same and forming a part hereof.

Figure 1 is a perspective view of the device with a book thereon, when the legs or standards are set at about right angles to the desk on which it rests. Fig. 2 is a perspective view of the device with the book removed and in a position to sustain the book at a slight angle to the desk. Fig. 3 is a longitudinal section of the tube and bar constituting the means for adjustably holding the spacer or guide. Fig. 4 is a plan view of the upper side of the upper plate of the device. Fig. 5 is a plan view of the adjustable standard and bottom brace removed. Fig. 6 shows the standard and brace attached to the frame and part of the frame cut away indicating how the standards are attached to and sustain the frame. Fig. 7 is a rear view of the angle plate D showing the mode of adjustably attaching the spacer in the plate.

Like letters of reference denote corresponding parts in each of the figures.

Referring to the drawings, A represents the device and B the base bar or plate, which consists of an angle iron against which the book C rests when the device is in position and ready for use. At the top of this device is a bar or plate D preferably of angle iron. These two plates B and D are attached at their ends to two angle bars E the whole forming a frame. At the juncture of the bars E with the plate D, at each end, there is pivoted a standard or leg G. These standards G each consist of two members H and *h* which are pivoted together by a pivot pin I. The part *h* is also pivoted to the plate D by the pivot pin J. The pivot pin I may be a set-screw; and, when necessary, by tightening the set-screw the parts H and *h* may be made to form a rigid straight standard.

To the frame, at the base, on each side, is pivoted a brace K which is provided with a slot L in which the lower end of the brace G is adjustably attached by a set screw *k*. In this manner the standard G may be set at any place along the slot L in the brace K and in this manner vary the angle of the frame to the base.

For the purpose of indicating the line desired to be copied, there is provided an adjustable spacer M which consists preferably of a circular bar N provided with notches O, to the lower end of which is attached a horizontal bar or spacer P. In order to provide means whereby the spacer can be adjusted to the line desired for copying, the bar N is inserted through a tube Q, which tube is provided with a shoulder R, said shoulder having a hole therethrough opening into the tube. The inside of the opening in the shoulder is screw-threaded and into it is screwed a tube S having a head *s* integral therewith through which is an opening. In this tube is inserted a pin *d* having a shoulder *p* on its inner end. This pin is surrounded by a spring *n* which bears against the head *s* and the shoulder *p*. The pin *d* is adapted to engage the notches in the rod N and the spring serves to hold the pin in engagement with the notches O and exert a tension on the bar N.

The notches O in the bar N are formed the same distance apart on the bar as the space between the lines to be copied; and if it be necessary to copy a book having lines different in the spaces between them, then another bar N having notches of the distance apart to correspond to the spaces between the lines, is inserted in the tube Q so that when the bar N is drawn down one notch, the spacer will be brought down with it just the space between the lines.

For the purpose of adjusting the spacer to adapt it to space upon books of different thickness and width, there is preferably cast with the tube Q a shoulder T and pin *t*. Upon the pin *t* is pivoted an arm U. This arm U is pivoted to a block or standard W, which standard is removably secured in a recess X

in the bar or plate D. When the book is exceedingly thick, then there may be two or more of these arms U, and when the book is of great width when opened, there may be several of these recesses X or a slot Z in the bar D.

The convenient mode for using my device is substantially as follows: The angle to which the book is desired to be set is first determined. If it be an angle of about 45° as shown in Fig. 1, the standards G are each adjusted by turning the plate *h* backward until it rests against the under surface of the side piece or bar E, then the part H of the standard G is moved along in the slot L until the proper angle for the book rest is obtained, and the set screw *k* is brought into action and holds the standard G firmly attached to the brace K. If it is desired to have the rest at a slight angle to the table on which the device is used, the member *h* of the standard G is brought away from the side pieces E and set in nearly a perpendicular position, with the lower end, which is pivoted to the member H, resting upon the table and the member H in a line parallel with the brace K and the set screw *k* is tightened.

It will be observed that when the rest is in the position shown in Fig. 2 it will set firmly on the table as the members H serve as standards or legs and hold the book rest firmly and these legs cannot move in either direction because the set screw will hold the member H rigidly upon the brace K. It will also be observed that when the rest is in the position shown in Fig. 1 it will also set firmly upon the table as the side pieces E form a bearing along the whole length of the member *h* of the standard G and as the side pieces E are of angle iron they will engage upon two sides of the member *h*. It will also be seen that if it is desired to lower the book to some intermediate angle between that shown in Figs. 1 and 2 then the standards G will be moved further along towards the outer ends of the slots in braces K and still the same rigidity will be maintained at whatever angle the rest is set.

When the book is adjusted to the position desired, then the spacer P is adjusted by setting the standard W at the desired place along in the plate D to adapt it to the width of the book when open, and the arm U is brought to substantially a right angle with the standard W or otherwise as is determined by the thickness of the book and the set screw is tightened. Then the bar N is shoved up into the tube Q until the spacer P is upon the line desired to be copied. As each line is copied, the copyist grasps the spacer P and pulls it down one notch which just meets the next line to be copied and so on down through the page, the rod M being of sufficient length to reach to the bottom of the page. When the page is copied, the operator grasps the spacer P and forces the bar N back through the tube. This can be readily done as the notches O in the rod N are curved and the end of the pin *d* is also curved. If it is desired to copy a page having lines of different distances apart, then there is inserted in the tube Q a bar N having notches O at the required distance apart.

It will be observed that this book rest may be adapted to be set at any desired angle and the spacer also set to copy pages having lines of different spaces between them, and also adjusted to books of different widths and thicknesses.

A variation in the details may be made by a good mechanic without departing from the spirit of my invention.

Having now described my invention what I claim is:—

1. In a device of the character described, a frame for supporting a book, sustaining standards pivoted to the frame, each standard consisting of two members pivoted together, and braces secured to the frame, the standards being adjustably attached to said braces.

2. In a device of the character described, a frame, braces each provided with a slot and attached to the opposite sides of the frame, sustaining standards pivoted to the frame, each standard consisting of two members pivoted together, and said standards adjustably attached to said braces by means engaging the slots in the braces.

3. In a device of the character described, a frame provided with side pieces of angular shape, a brace secured to each side piece, and standards each consisting of two members pivoted together and attached to each side piece and adjustably attached to the braces.

4. In a device of the character described, a frame for supporting a book, braces secured to the frame, sustaining standards each consisting of two members pivoted together and secured to the frame and adjustably attached to the braces, and a spacer for indicating the line to be copied.

5. In a device of the character described, a frame, standards pivoted to the frame and each formed of two members pivoted together, braces provided with slots secured to the frame, set screws adapted to engage the slots in the braces and adjustably secure the standards to the braces, a spacer attached to the frame, and means for permitting the spacer to be moved a predetermined distance between the lines to be copied.

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

FRANK H. HOFFMANN.

Witnesses:
M. M. CADY,
M. M. KIEBLER.