W. A. LEWIS & L. C. EISENHART.

MOVABLE BOOK SUPPORT.

APPLICATION FILED APR. 18, 1916.

1,258,230.

Patented Mar. 5, 1918.

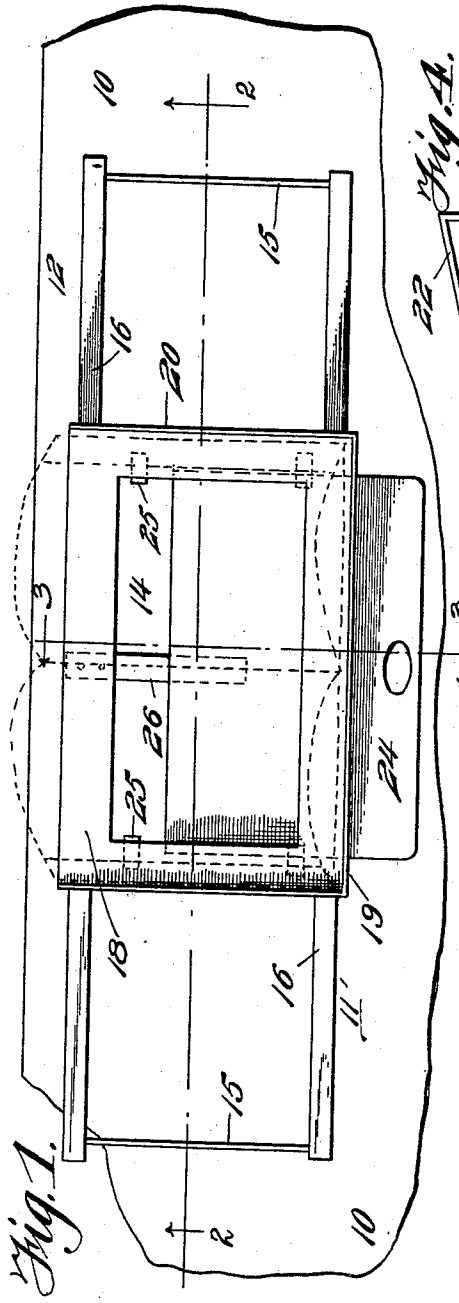


Fig. 1.

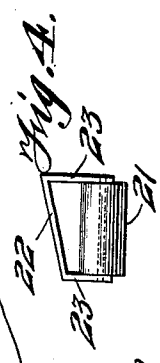


Fig. 4.

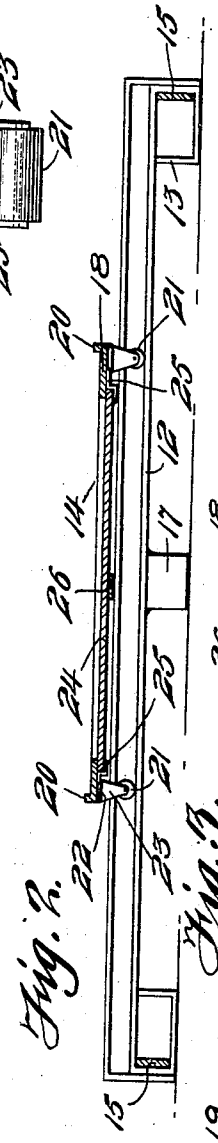


Fig. 2.



Fig. 5.

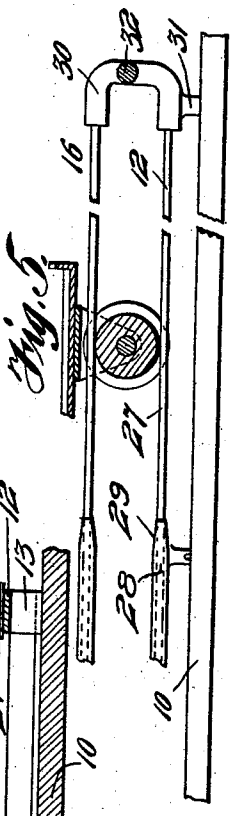


Fig. 3.



Fig. 6.

WITNESSES

J. E. Spaulding.

H. P. Hemingsworth

INVENTOR

William A. Lewis and

Lyle C. Eisenhart

BY

Richard B. Owen,

ATTORNEY

UNITED STATES PATENT OFFICE.

WILLIAM A. LEWIS AND LYLE C. EISENHART, OF SILVER CITY, IDAHO.

MOVABLE BOOK-SUPPORT.

1,258,230. Specification of Letters Patent. Patented Mar. 5, 1918.

Application filed April 18, 1916. Serial No. 91,969.

To all whom it may concern:

Be it known that we, WILLIAM A. LEWIS and LYLE C. EISENHART, citizens of the United States, residing at Silver City, in the county of Owyhee and State of Idaho, have invented certain new and useful Improvements in Movable Book-Supports, of which the following is a specification.

This invention relates to a movable book support for use in banks, mercantile houses and other places where large books are used to keep records of accounts and in tax offices and the like where extensive indexes of names with various data relating thereto are recorded in similar books. In the use of books of this kind, it is necessary to stand before them and when reading therefrom or inscribing data therein, the large size of the books necessitates such person walking to and fro in front of the book and also the expenditure of considerable physical exertion in lifting, turning and dragging the book about to get it in the most convenient position. To render unnecessary the expenditure of so much physical exertion which in the course of the day is very tiresome and wearing, is the object of the present invention, which consists in providing a carriage upon which books are supported and rails mounted upon a desk or other support to sustain the carriage and permit it to be moved from side to side in front of a person, while he is sitting or standing in one place, thereby enabling the book to be moved into the most convenient position for the person's use and without exertion on his part.

In the accompanying drawing which represents the preferred form of the invention, Figure 1 is a top plan view of a portion of a desk or other support with the invention in place thereon.

Fig. 2 is a vertical sectional view of the same on the lines 2—2.

Fig. 3 is a vertical cross-sectional view on the line 3—3 of Fig. 1.

Fig. 4 is a detail view of one of the supporting rollers.

Fig. 5 is a vertical longitudinal sectional view of a modified form of the device, and

Fig. 6 is a view of one of the carriage supporting rollers used in connection with the modification.

Referring to the drawing by numerals, 10 indicates the top of a desk, table or other relatively-fixed support to which is secured two rails 11 and 12 that lie parallel to each other and to the front of the top 10 and spaced apart a suitable distance, the front rail 11 resting directly on the top 10, while the back rail 12 is elevated on feet 13 to such height as will give the desired inclination to the book supporting carriage 14 traveling over said rails. These rails are preferably made of flat metal, the ends of the rear rail 12 being bent downwardly and upwardly as shown in Fig. 2 and form the supporting feet from which cross-bars 15 extend forwardly to the front rail 11. These cross-bars are riveted to both rails and serve to form a strong rectangular frame.

Above each rail and parallel therewith, is a guide strip 16, the ends of which are turned down and riveted or otherwise secured to the ends of the rails and further assist in strengthening the frame formed of said rails. A foot 17 may be placed at the center of the rear rail 12 and extends to the top 10 when said rail is of such length that it is liable to sag under the weight of the carriage and the book supported thereon.

The carriage 14 comprises a rectangular top 18 sufficiently large to support the largest book and preferably has an upstanding ledge 19 at the front or lower edge of the top and a similar ledge 20 at each side which serves to hold the book on the top. The top 18 is preferably made of sheet steel and may be of skeleton form as shown in the drawing or made solid as desired.

Each corner of the top or desk 18 is supported by a roller 21 pivotally mounted in a bracket 22 riveted against the bottom of the top 18, the two rollers at the front of the desk bearing on the rail 11, while the two at the rear thereof, run on the rail 12. The rollers 21 are of sufficient length to extend across the rails 11 and 12 and have a diameter nearly equal to the distance between the said rails and the guides 16 thereover. The brackets 22 in which the rollers are mounted have vertical bearing plates 23 at each end, the connecting portion of said bracket between the bearing plates 23 being inclined to the horizontal at the same angle it is desired the carriage 14 to assume when in use as shown in Fig. 3. It will thus be seen that when said brackets are attached to the carriage and the carriage mounted on the rails, the rollers 21 will rotate about horizontal axes notwithstanding the inclination

of the carriage. By this arrangement of the rollers, the direction of force due to the weight of the carriage and the book support thereon will be at all times in a vertical direction and perpendicular to the axes of said rollers, thereby avoiding all lateral pressure and tendency of the carriage to run off the tracks. The guides 16 lie between the rollers 21 and the top of the brackets 22 and close to the rollers, thus preventing the carriage from being lifted from or leaving the tracks.

For convenience in writing, an arm-rest 24 is mounted in guide brackets 25 below the desk top or book support 18 and may be drawn forwardly beyond the front of the desk to support the arm when writing in a book near the bottom thereof. A leaf spring 26 attached to the rear of the support 18 extends forwardly beneath the arm rest 24 and presses upon the same for the purpose of holding the arm rest in any position into which it may be moved.

The operation of the device is evident from the above description. A book is placed upon the support 18 in front of a person who wishes to examine the same and after opening it, the carriage is moved to the right or left, while the person examining the book remains seated or standing in one position, the extent of movement in either direction being dependent upon the position on either page of the matter which it is desired to examine.

Instead of making the rails 11 and 12 and the guides 16 each of a single piece, they may be made as shown in Fig. 5 of two sections 27 and 28 telescoping one within the other and of round tubular material. The end of each outer section 28 where the inner section 27 enters the same will be ground away as shown at 29 to permit the rollers that support the carriage passing easily thereover. In this modification, each rail and the guide 16 above the same will be connected at each end by a return bend 30 having feet 31 that rest upon the top 10 of the desk or table. The return bends of the front and rear rails at each end of the track will be connected by cross bars 32. When tubular material is used for the track, the rollers 21 will have concaved bearing surfaces 33 as shown in Fig. 6.

While we have shown and described the best form of device known to us at the present time, it is to be understood that various changes and arrangements in the details of construction may be made without departing from the spirit of this invention and such changes as are equivalents of that which is shown and described we hold as covered by the claim.

We claim:

A book support comprising a transversely movable carriage for holding a book, a track for the carriage comprising a front rail, and a rear rail at a higher elevation than said front rail, brackets attached to the carriage, rollers carried by said brackets and adapted to run on said rails, and a guide above each rail extending over the rollers thereon and through the brackets.

In testimony whereof we affix our signatures in presence of two witnesses.

WILLIAM A. LEWIS.
LYLE C. EISENHART.

Witnesses:
ASHER A. GETCHELL,
J. E. DICKENS.

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