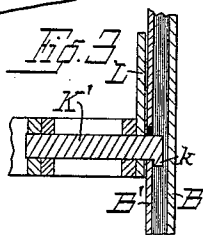
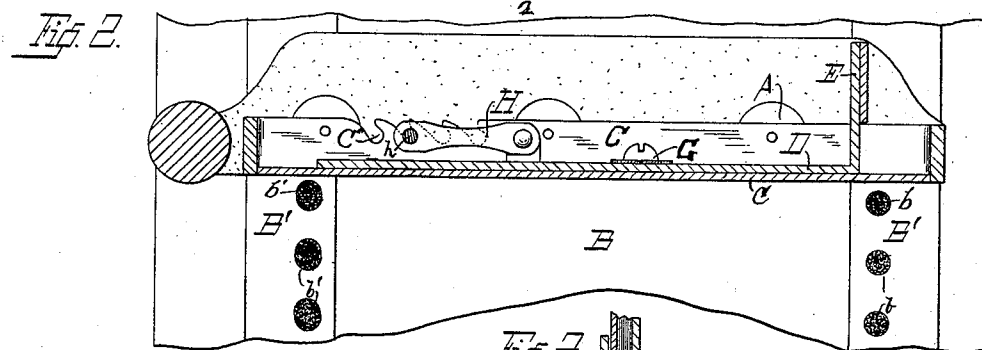
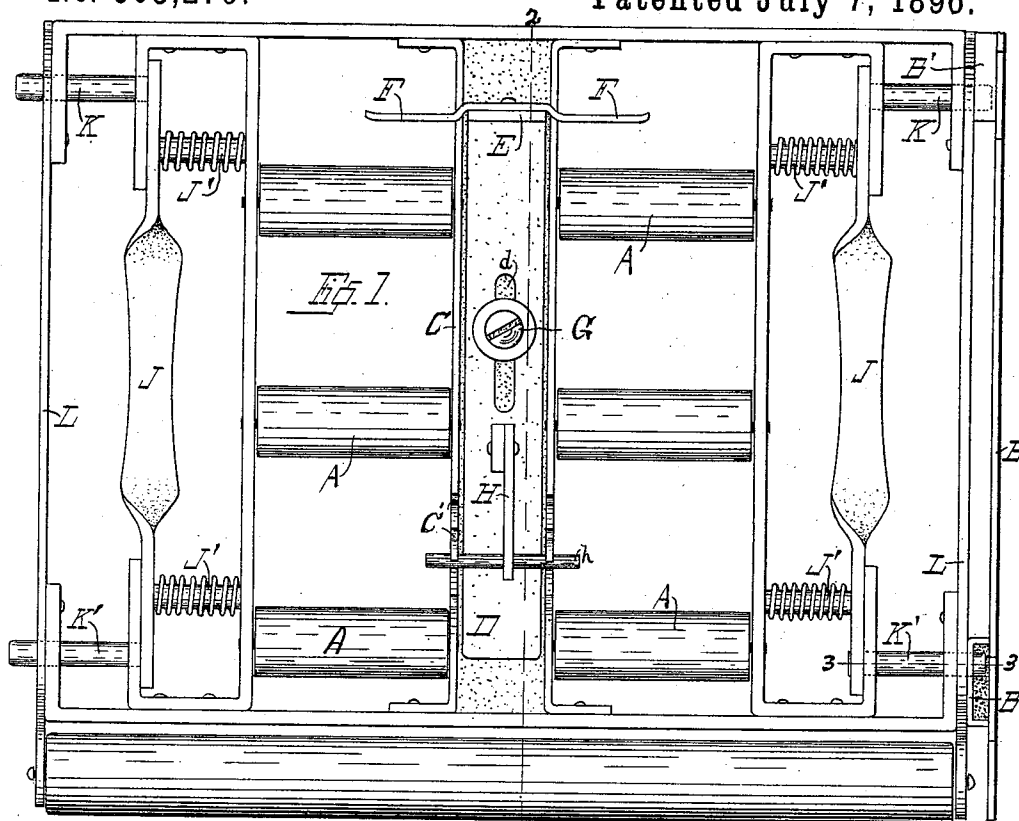


(No Model.)

J. KOESTLER.
ADJUSTABLE BOOK SHELF.

No. 563,279.

Patented July 7, 1896.



Witnesses:
L. Q. H.
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UNITED STATES PATENT OFFICE.

JOSEPH KOESTLER, OF MILWAUKEE, WISCONSIN.

ADJUSTABLE BOOK-SHELF.

SPECIFICATION forming part of Letters Patent No. 563,279, dated July 7, 1896.

Application filed April 3, 1896. Serial No. 586,063. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH KOESTLER, a citizen of the United States, residing at Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented new and useful Improvements in Adjustable Book-Shelves, of which the following is a specification.

My invention relates to improvements in that class of adjustable and removable book-shelves which are constructed largely of metal.

The objects of my invention are, first, to provide the shelf with an adjustable book-stop whereby the alinement of the bindings will be preserved regardless of the width of the book; second, to provide an improved shelf-supporting mechanism, and, third, to provide for holding the sides of the case from springing laterally under the weight of the books.

In the following description reference is had to the accompanying drawings, in which—

Figure 1 is a top view of my improved book-shelf. Fig. 2 is a section view drawn on the line 2 2 of Fig. 1. Fig. 3 is a detailed section view drawn on the line 3 3 of Fig. 1 to show the hook attached to the outer end of the locking-rod.

The same and like parts are identified by the same reference-letters throughout the several views.

The style of shelf herein shown is composed of a skeleton frame provided with idler-rollers A, upon which the books are supported in pairs between vertically-disposed case-plates B, of sheet metal, and I do not claim, broadly, that such a construction is novel; but in the center of the shelf I have located a channel-iron C, in which rests a slotted plate D, provided at its rear end with a standard E, having laterally-projecting arms which form a stop F, against which the books will strike when inserted in the case. A bolt G projects through the slot *d* in the plate and slidably secures it to the channel-iron. H is an adjusting-lever pivotally attached to the plate D, and provided with a cross-rod *h*, which is adapted to engage in notches C' in the upturned edges of the channel-iron. It is obvious that by means of the lever H the stop F may be adjusted to the front or rear, as desired, so as to correspond to the width of the books.

For adjusting or removing the shelf I have provided each of the side plates B with vertically-disposed channel-irons B' on their inner faces, and have formed bolt-holes *b* at regular intervals, those on the front channel-iron being elongated vertically, as shown at *b'* in Fig. 2. A spring-actuated bar J, movably supported within the shelf-frame upon the bolts J', is provided with bolts K and K', which project through the raised side plate L of the shelf into the holes *b* and *b'*, respectively. The bolt K' is formed with a downward-projecting hook *k*, which engages the channel-iron to support the plate B laterally, thus preventing it from springing and disengaging the shelf.

When it is desired to remove or adjust a shelf, the front edge thereof is lifted to disengage the hooks *k*, and the bars J are then drawn inwardly toward the center of the shelf to release the bolts K and K' from their respective channel-irons. As the channel-irons are provided with a vertical series of bolt-receiving holes the shelf may be quickly adjusted at any desired height.

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

1. In a book-shelf, the combination of the case-plates provided with vertically-disposed channel-irons having a series of bolt-receiving holes therein, a shelf composed of a skeleton metallic frame, and a spring-actuated bar located transversely of the shelf near the side thereof and provided with bolts adapted to engage in the holes in said channel-irons to form a front and rear support, whereby the movement of said bar will actuate both of the bolts simultaneously, substantially as described.

2. In a book-shelf, the combination of the case-plates provided with vertically-disposed channel-irons having a series of bolt-receiving holes therein, a shelf composed of a skeleton metallic frame, and one or more spring-actuated bars connected with said shelf-frame and provided with laterally-projecting bolts adapted to engage in the holes in said channel-irons, one of said bolts being provided with a hook *k* and the holes in the front channel-iron being elongated vertically, substantially as described.

3. In a book-shelf, the combination of the case-plates provided with vertically-disposed channel-irons having a series of bolt-receiving holes therein, a shelf composed of a skeleton metallic frame, one or more spring-actuated bars connected with said shelf-frame and adapted to engage in the holes in said channel-irons, a centrally-disposed channel-iron crossing the shelf from front to rear, and
10 a bar adjustably supported therein and provided with an upwardly-projecting book-stop, substantially as described.

4. In a book-shelf the combination of the case-plates provided with vertically-disposed
15 channel-irons having a series of bolt-receiv-

ing holes therein, a skeleton shelf provided with spring-actuated bolts adapted to engage in said holes, a channel-iron centrally located in said shelf and having notches therein, a sliding plate located in said channel-iron and
20 provided with an upwardly-projecting book-stop, and a lever pivotally attached to said plate and adapted to engage in notches in said channel-iron, substantially as described.

In testimony whereof I affix my signature 25
in the presence of two witnesses.

JOSEPH KOESTLER.

Witnesses:

LYMAN G. WHEELER,
LEVERETT C. WHEELER.