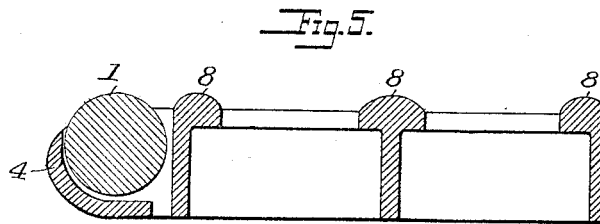
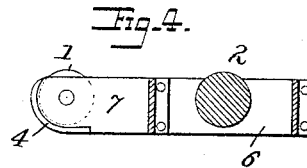
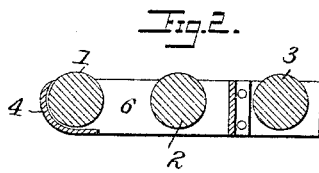
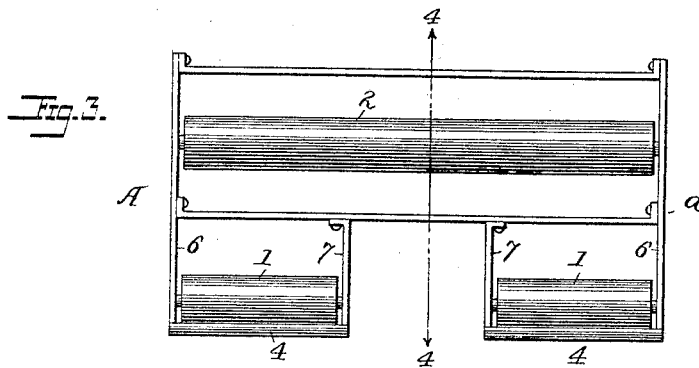
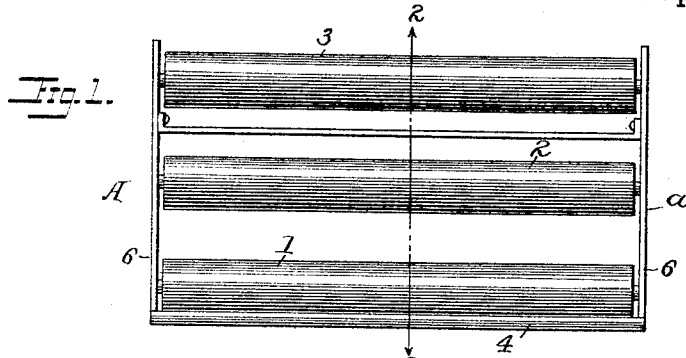


(No Model.)

J. W. HINE.
BOOK RACK.

No. 458,902.

Patented Sept. 1, 1891.



WITNESSES
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UNITED STATES PATENT OFFICE.

JAMES W. HINE, OF JAMESTOWN, NEW YORK, ASSIGNOR TO THE FENTON METALLIC MANUFACTURING COMPANY, OF SAME PLACE.

BOOK-RACK.

SPECIFICATION forming part of Letters Patent No. 458,902, dated September 1, 1891.

Application filed December 10, 1890. Serial No. 374,170. (No model.)

To all whom it may concern:

Be it known that I, JAMES W. HINE, a citizen of the United States, residing in Jamestown, Chautauqua county, State of New York, have invented certain new and useful Improvements in Book-Racks, of which the following is a specification.

In that class of book-racks intended for the support of heavy books and more especially in that class of racks used in metallic or fire-proof office-furniture it is common to make use of rollers which have been placed sometimes in front and sometimes behind the forward bars of the frames constituting the shelves. When the rollers are placed behind the front bars, as heretofore constructed, the sharp edges of the bars abrade and injure the bindings of the book, and are also apt to cause injury to the hands of those handling the books. When the rollers are placed in front of the bars, it is necessary to provide the latter with a number of supports or bearings, which add to the expense of the construction, and which, being exposed, detract from the finish of the article.

The object of my invention is a shelf constructed to secure the advantages of a front roller or rollers without the objections heretofore incident to this class of articles; and to this end I construct the shelf substantially as set forth hereinafter, and as illustrated in the accompanying drawings, in which—

Figure 1 is a plan view of a roller-shelf embodying my improvements. Fig. 2 is a section on the line 2 2, Fig. 1. Fig. 3 shows in plan the shelf having a central hand-hole and constructed in accordance with my invention. Fig. 4 is a section on the line 4 4, Fig. 3. Fig. 5 is a cross-section showing the invention applied to another form of shelf.

The shelf A may be a solid shelf with a single roller at the front; or it may consist of a frame a, supporting a series of parallel rollers 1 2 3. In either case the front roller 1 is in a position to constitute a support for the book or books as the same are pushed over the edge of the shelf toward the rear supports.

Instead of placing the front roller, which may be in one or more sections, in front of the front bar of the frame or shelf and instead of making the latter in the form of an angular bar, as usual, I make the front bar of comparatively thin metal, arrange it as close as possible to the front edge of the front roller, and I curve it to conform to the shape of the roller and to receive the same in its hollow or concave side, and I polish or smooth the outer surface of this bar, all in such manner that when a book is placed upon the edge of the shelf it will meet with no sharp edges, but, on the contrary, will find a smooth polished and curved bearing, upon which it may slide with an inappreciable amount of friction and without being abraded until it comes in contact with the forward rollers. The polished and curved front bar 4 extends from end to end of the frame, and there is a continuous front roller, or when there are two front rollers with an intermediate hand-space or hand-hole, as shown in Figs. 3 and 4, the front bar is in two sections, each extending wholly across that part of the frame supporting the front roller-section, so that the said front bar covers the roller-bearings and secures a much more finished appearance than when said bearings are upon the outside, and as the front roller, whether in one or two sections, has its bearings in parts of the frame—as, for instance, in the bars 6 6 or 6 6 7 7 thereof—the expense of fitting additional bearing-pieces to the frame is avoided.

In the construction shown in Fig. 5 the front roller and front bar are part of a shelf or rack in which the inner bearings are parallel rounded ribs 8, instead of rollers. It will be evident that the rollers may be of metal or other material and plated or lacquered; but inasmuch as the front bars almost wholly cover or conceal the rollers when so desired the said front bars may be plated or lacquered, while the rollers may be of wood, without materially detracting from the appearance and finish of the shelf.

Without limiting myself to the precise con-

struction and arrangement of parts shown, I
claim—

A roller shelf or rack having a front roller
and a front bar forward of the roller curved
5 to conform to and to receive in its concave
side the roller, substantially as set forth.

In testimony whereof I have signed my

name to this specification in the presence of
two subscribing witnesses.

JAMES W. HINE.

Witnesses:

FRANK S. OSBORN,

CHARLES E. FOSTER.