

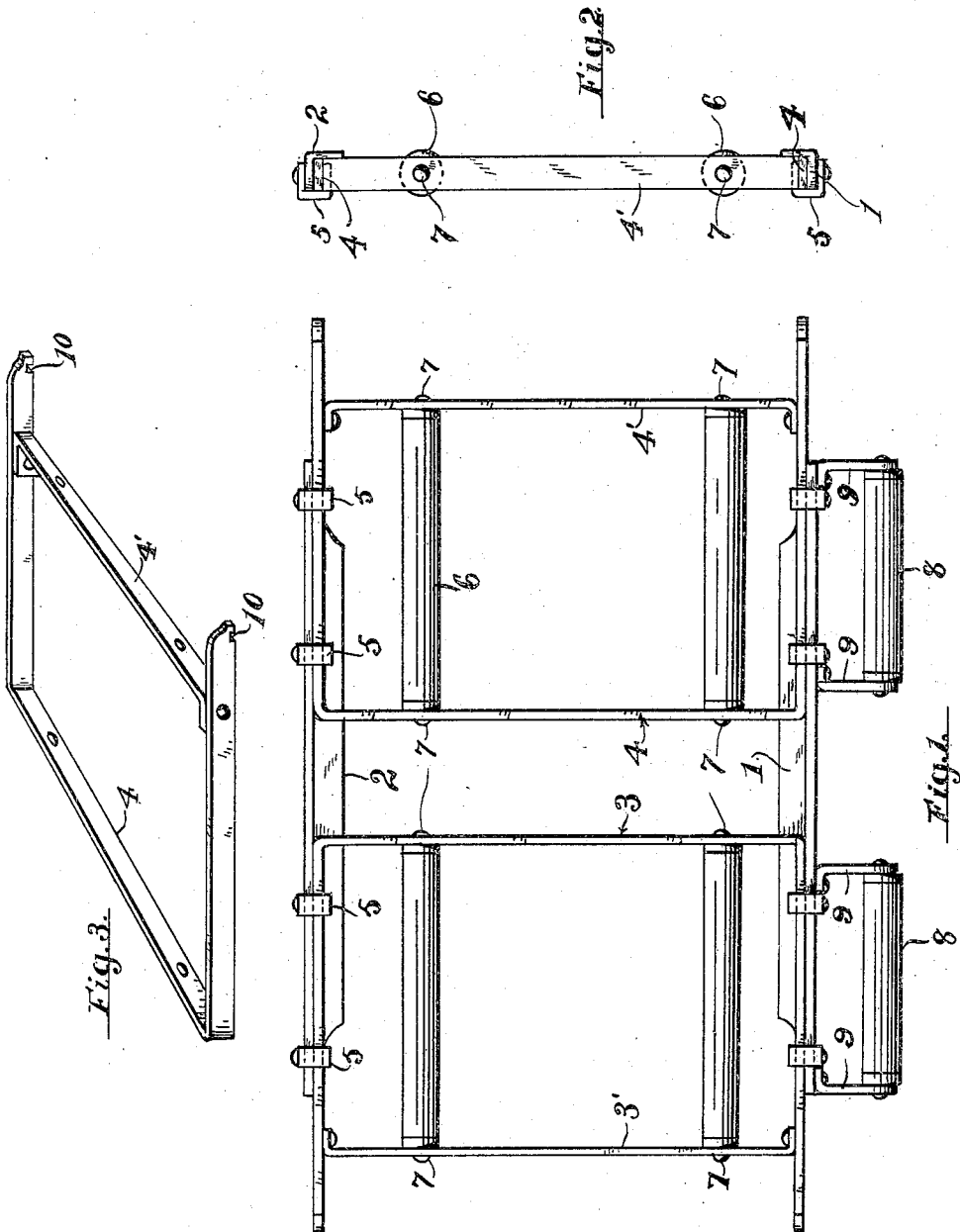
No. 810,824.

PATENTED JAN. 23, 1906.

F. W. TOBEY.

SHELF.

APPLICATION FILED AUG. 10, 1905.



Witnesses

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UNITED STATES PATENT OFFICE.

FRED W. TOBEY, OF GRAND RAPIDS, MICHIGAN.

SHELF.

No. 810,824.

Specification of Letters Patent.

Patented Jan. 23, 1906.

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To all whom it may concern:

Be it known that I, FRED W. TOBEY, a citizen of the United States, residing at Grand Rapids, in the county of Kent and State of Michigan, have invented new and useful Improvements in Shelves, of which the following is a specification.

My invention relates to an improvement in shelves for bookcases, and especially for cases designed to hold very heavy books, like records in public offices and similar places, where the books rest upon their sides. For this purpose shelves have been supplied with rollers, so that the books may be more easily inserted and removed. It is now customary in manufacturing cases of this kind to furnish different sizes for different-sized books, and it is desirable to have a roller-shelf which can be adjusted to cases of different widths, so that only one size of shelf may be manufactured in connection with several sizes of cases and so that the user may change his roller-shelf from one case to another case of different size. This object I accomplish by the construction shown in the accompanying drawings, in which—

Figure 1 is a top plan view of the shelf complete. Fig. 2 is an end view thereof, and Fig. 3 shows in perspective one of the constituent frames.

The shelf consists, essentially, of two similar roller-carrying frames. These are composed, respectively, of the bars 3 and 4, which, bent into the form shown, make up three sides of each frame. The fourth side is closed by the attached bars, (marked, respectively, 3' and 4'.) These bars 3 and 3' and 4 and 4' carry the rollers 6, revolving on the journals 7, and these rollers carry the books into and out of the case. The free ends of the bars 3 and 4 project beyond the transverse bars 3' and 4' and constitute the supports for the shelf and by which it rests upon the main frame of the case. There would customarily be provided some bar or rod attached to the side of the case and parallel thereto, and upon this bar or rod the free ends of 3 and 4 would rest. In such case in order to make a better connection and assist in holding the parts in an extended position I provide slots or openings 10, which would engage with such bar and upon which the entire shelf would slide into or out of the case.

To make connection between the two roller-

frames, I provide the front bar 1 and the rear bar 2. These are preferably made of angle-iron of suitable size, having a flat plate and an upturned flange, as indicated in the drawings, and they are provided with hooks or guides 5 5, which extend horizontally and inwardly from the top of the flange and then extend downwardly approximately the height of the bars 3 and 4, remaining open at the bottom. In this manner the horizontal part and the upwardly-extending flange of the plates 1 and 2 and the horizontally-extending and the downwardly-extending parts of the hooks 5 constitute four-sided ways in which the end bars of the frames 3 and 4 slide, so that the frames may be moved to and from each other, but will be at all times held so rigidly in connection with the front and rear bars 1 and 2 that the shelf will sustain all the weight which it will be required to carry. At the same time the horizontal portion of the bars 1 and 2 is cut away, as shown, just inside of the outer hooks 5, so that the roller-carrying frames can be inserted from each end of the bars 1 and 2 and will enter the ways formed as above. The inner hooks 5 5 will provide four-sided ways, as above stated, while the outer hooks will provide three-sided ways open on the bottom.

For more efficient operation I attach upon the front of each roller-frame supplementary rollers and roller-frames 8 9 to carry the weight of the book as it leaves the shelf. The same hooks 5 which form portions of the sliding-ways at the front of the shelf also serve as means of attaching rigidly the supplementary frames and rollers.

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

An adjustable roller-shelf consisting of front and rear bars, roller-carrying frames, rollers carried thereby, and means for slidable connection between bars and frames, whereby the frames may be adjusted to and from each other and the length of the shelf may be correspondingly affected.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

FRED W. TOBEY.

Witnesses:

GRACE FYFE,
MARY S. TOOKER.