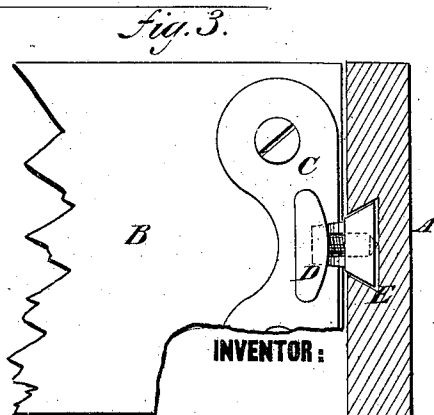
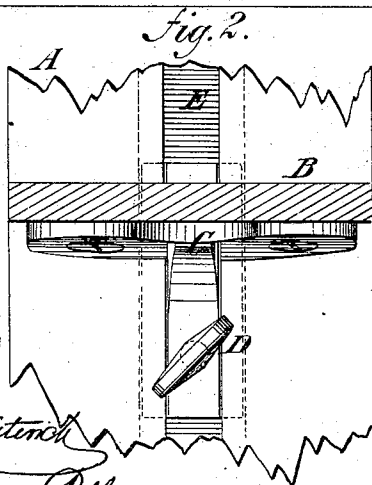
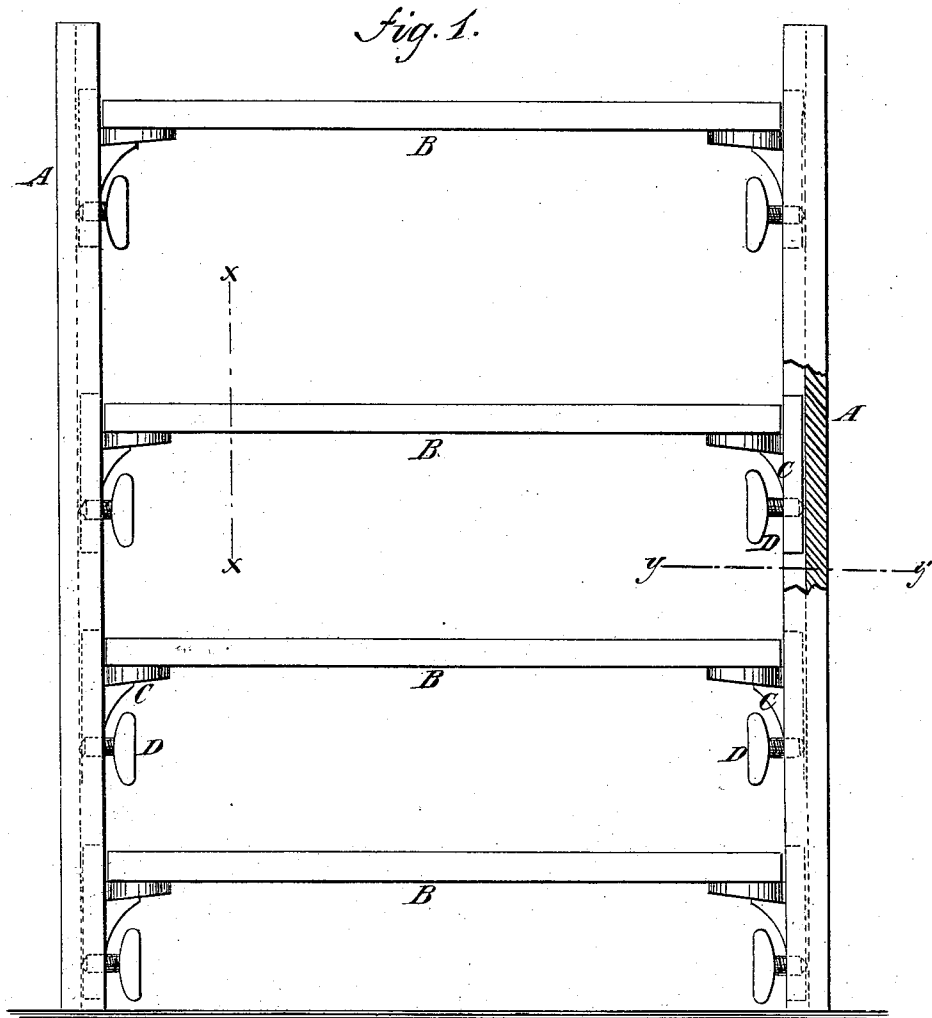


F. G. JOHNSON.
 DEVICE FOR SUPPORTING SHELVES.

No. 191,058.

Patented May 22, 1877.



WITNESSES:

Guillaume Ristonech
John M. Stille

INVENTOR:

Frank G. Johnson.

UNITED STATES PATENT OFFICE

FRANK G. JOHNSON, OF NEW YORK, N. Y.

IMPROVEMENT IN DEVICES FOR SUPPORTING SHELVES.

Specification forming part of Letters Patent No. **191,058**, dated May 22, 1877; application filed November 24, 1876.

To all whom it may concern:

Be it known that I, FRANK G. JOHNSON, of the city, county, and State of New York, have invented a new and useful method of fastening and adjusting the shelves of book-racks, book-cases, and other shelving to their upright stanchions or supports; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawing, making a part of this specification, in which—

Figure 1 represents a vertical front view; Fig. 2, a sectional vertical side view; and Fig. 3, a transverse section.

The object of my invention is to produce portable and adjustable shelving for book-racks, book-cases, closets, stores, &c.

The nature of my invention consists in securing to each end of shelves a metallic fixture, provided with a projecting vertical dovetail bar, to slide up and down in a corresponding vertical dovetail groove or slot in the upright supports of the shelves, by means of which the shelves can be readily placed in or removed from their uprights, or placed and held therein at any desired distances from each other, by simply binding the dovetail bar in the dovetail slot or groove with a thumb set-screw, working in the said bar, and pressing against the uprights in the bottom of the slots or grooves.

The following is a full description of the construction and operation of my invention.

B B B B represent a set of shelves of any desired length, width, and thickness. A A represent their upright stanchions or supports. C E D represent the devices for attaching the shelves to their uprights, E being a bar of suitable length, and having a dovetail shape, and held to the upright by being slipped into a groove of corresponding shape and size, made in or near the center of the uprights A A, which grooves extend unbroken from the top to nearly the bottom of both stanchions. C C are ears or projections

extending at right angles from the bars E E, to which are securely fastened the shelves B B, by screws or rivets. D D are thumb set-screws, by tightening which the bars E E are securely bound and held within corresponding grooves in the uprights, and the whole apparatus rendered rigid and firm.

By turning back the thumb set-screws D D of either shelf B B, the shelf can be raised or lowered any required distance, and be there secured by tightening the screws again.

The method of putting up the shelving is to slip the shelves one after another into the grooves at the top of the uprights, and let them slide down to their several desired positions, and there secure them by tightening the several thumb-screws.

By turning back the thumb-screws, the shelves can, one after the other, be slipped out of the grooves, and the apparatus be thus taken apart, and rendered portable.

The continuous grooves in the uprights may be made by sinking or cutting them in the wood or substance of the uprights themselves, as shown, or they may be provided by securing to the uprights, by screws or otherwise, suitable metallic strips containing the grooves.

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

1. The dovetail bar E, arranged to slide in the corresponding vertical and continuous groove in the upright A A, and provided with suitable projection C, to which the shelf B can be fastened, substantially as set forth.

2. The combination of the thumb set-screw D with the dovetail bar E, for securing the bar E at any desired point in the corresponding groove of the upright, substantially as described.

FRANK G. JOHNSON.

Witnesses:

G. M. KENDALL,
F. P. WHITING.