

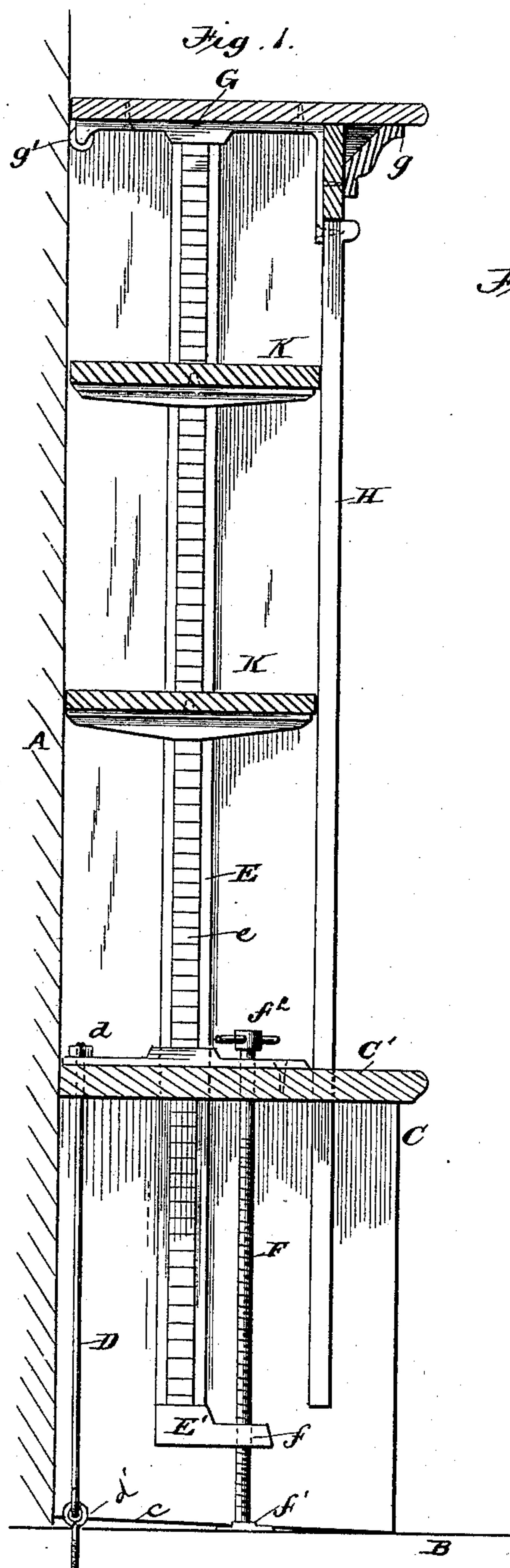
(No Model.)

B. F. ROBERTS.

## ADJUSTABLE AND PORTABLE SHELVING.

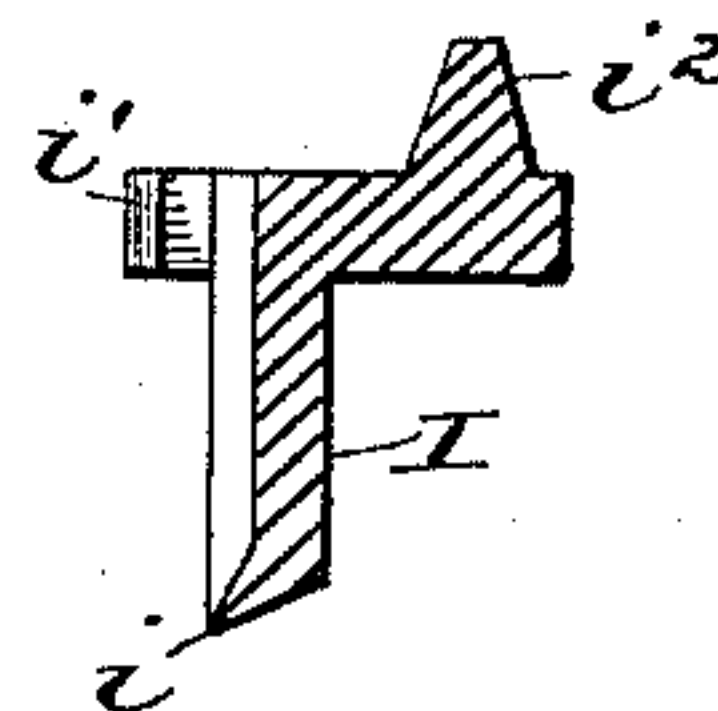
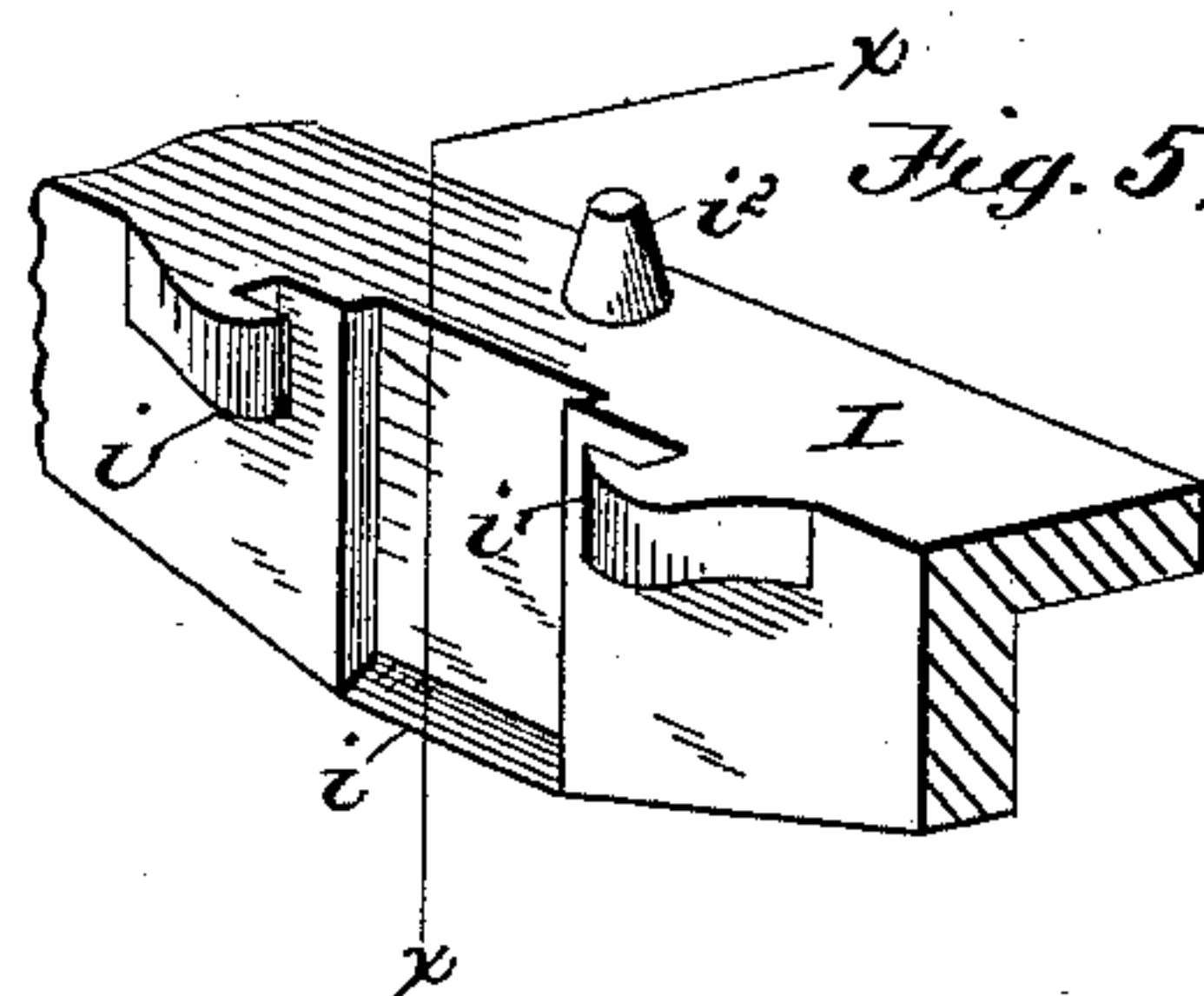
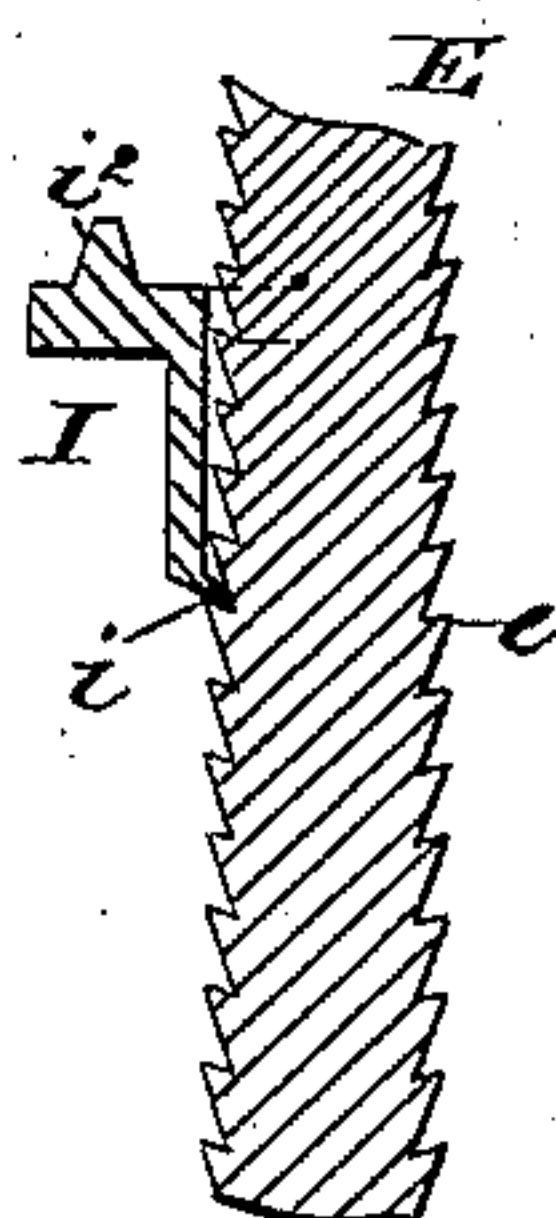
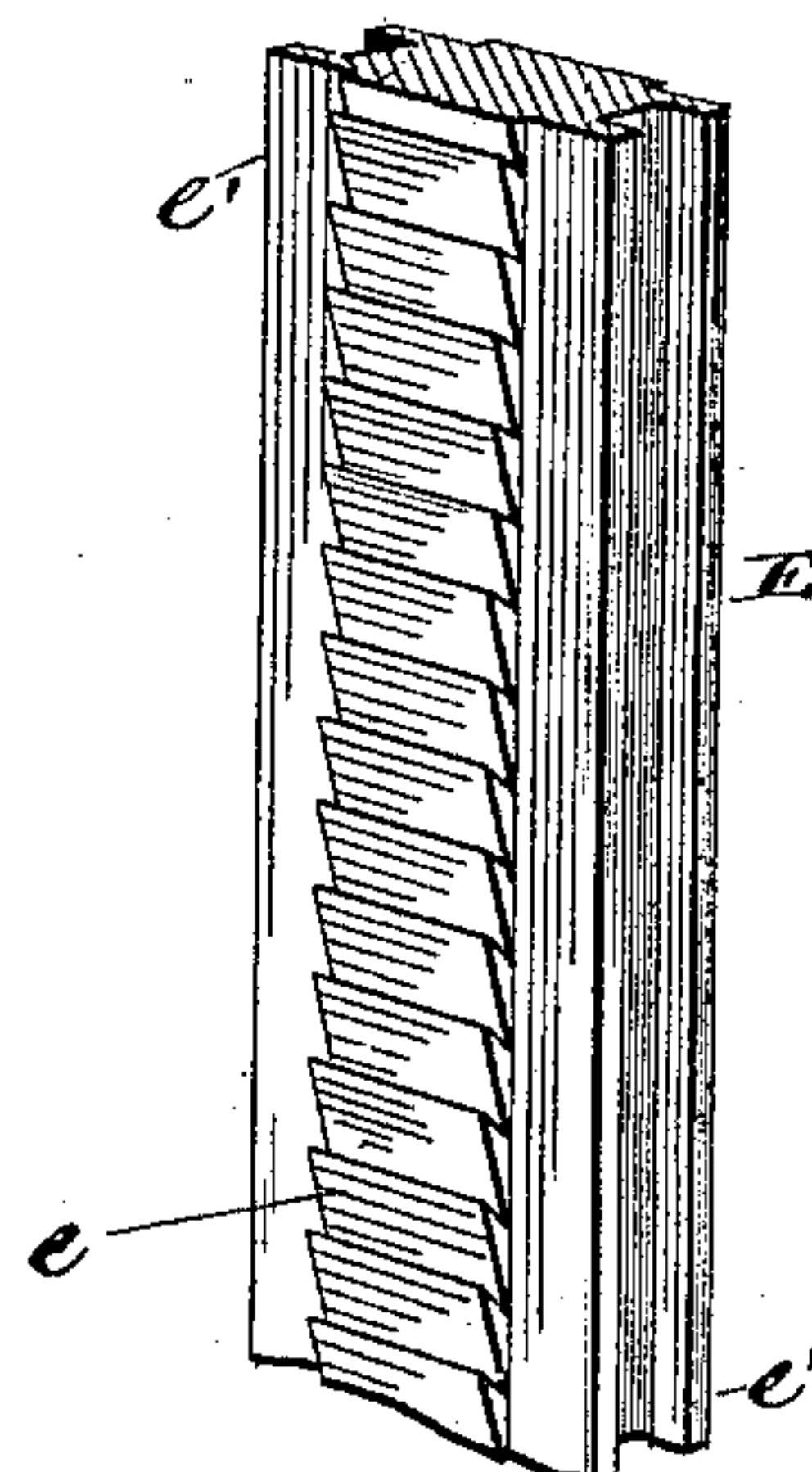
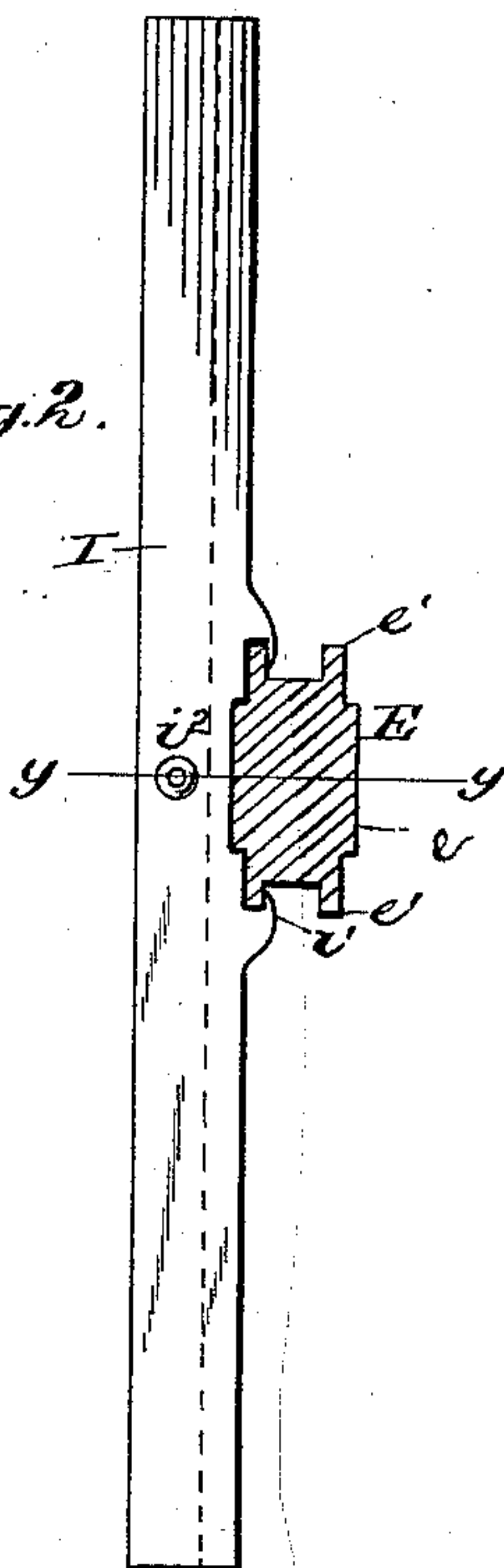
No. 277,510.

Patented May 15, 1883.



WITNESSES:

WITNESSES:  
Wm. H. Knight  
J. D. Bernhard



INVENTOR

INVENTOR  
Benjamin F. Roberts  
per Edson Bros,  
Attorney &



# UNITED STATES PATENT OFFICE.

BENJAMIN F. ROBERTS, OF LEON, IOWA.

## ADJUSTABLE AND PORTABLE SHELVING.

SPECIFICATION forming part of Letters Patent No. 277,510, dated May 15, 1883.

Application filed February 12, 1883. (No model.)

*To all whom it may concern:*

Be it known that I, BENJAMIN F. ROBERTS, a citizen of the United States, residing at Leon, in the county of Decatur and State of Iowa, have invented certain new and useful Improvements in Adjustable and Portable Shelving; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

My invention relates to shelves and shelving for stores, libraries, and the like; and the novelty consists in the construction, arrangement, and adaptation of parts, as will be more fully hereinafter set forth, and specifically pointed out in the claims.

The objects sought to be attained by the invention are, essentially: first, to provide portable shelves readily raised or lowered in their bearings; second, to prevent such shelves from sagging in their centers; third, to provide means for raising or lowering both shelves and bearings at will; and, fourth, to provide means for holding the complete device snugly against the wall.

The device as shown, and as it will be described, represents a system of shelving for stores, the lower portion having doors or drawers, and the upper portion consisting of shelves adapted to expose book-titles or goods.

In the accompanying drawings, Figure 1 is a vertical transverse section; Fig. 2, a horizontal section, with one of the shelf cleats or brackets in plan. Fig. 3 is a vertical section through the lines *y y* of Fig. 2; Fig. 4, a perspective view of one of the rack-standards; Fig. 5, a perspective view of one of the shelf-brackets, and Fig. 6 a cross-section of the latter through the line *x x*.

Referring to the drawings, A represents the wall, and B the floor.

C designates a proper frame, having the lower edge of its transverse supports beveled from front to rear, as shown at *c*. A threaded rod, D, passes through the top C' near its junction with the wall, and is provided with a nut, *d*, upon its upper end, the other end en-

gaging an eye in a bolt, *d'*, which is screwed into the floor B. The object of beveling the transverse supports of the frame C, as above described, is to enable me to draw the shelving tight against the wall, which sometimes is particularly desirable when the wall and floor are not exactly at right angles.

E designates the standards, which are placed at proper intervals along the base-frame, and they are provided with racks *e* upon one or both sides, according to their location, and are cast with guides *e'*. Each standard is provided with a foot, E', having a threaded perforation, *f*, through which operates a threaded bar, F, set in proper bearings upon the floor, at *f'*, and having a convenient handle, *f*<sup>2</sup>, above the top C', the bar F being journaled therein. Formed in one piece with the standards E, or secured thereto, are cap-pieces G, carrying friction-rollers *g'*, which traverse the wall-surfaces, and to these cap-pieces G are secured the moldings *g*. Uprights H are arranged vertically in juxtaposition with the front edges of the shelves when in place.

I represents the shelf-brackets, having pawl projections *i*, hooks *i'*, which engage the guides *e'*, and upon their upper surfaces one or more pins or projections, *i*<sup>2</sup>, which said projections are adapted to engage corresponding apertures in the shelves K.

It will thus be seen that not only may the shelves be adjusted at any distances apart, as may be desired, but that the standards themselves, which carry the shelves, are capable of vertical adjustment at will. The nibs or projections *i*<sup>2</sup> hold the shelves from lateral displacement and tend to prevent sagging.

Modifications in details of construction may be made without departing from the principle or sacrificing the advantages of my invention, the essential features of which will be readily understood—as, for instance, other means for elevating or depressing the standards may be employed.

It will be understood that iron-work—such as plates, bearings, &c.—are used where friction, wear, or strain would suggest such expedients.

What I claim as new is—

1. In combination with vertically-adjustable rack-standards and shelves K, the shelf-brack-

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ets I, adapted to be adjusted on such standards, as set forth.

2. In combination with the frame C, having beveled supports, the rod D, nut  $d$ , and floor-bolt  $d'$ , as and for the purposes set forth.

3. In combination with adjustable shelf-bearing standards and shelves having means for vertical adjustment thereon, the threaded rod F, having handle  $f^2$ , and operating as and for the purposes set forth.

4. The adjustable standards E, having rack

$e$  and guides  $e'$ , the shelf-brackets I, having hooks  $i'$ , pawl  $i$ , and pins  $i^2$ , and shelves K, combined with the means, substantially as described, for adjusting the said standards vertically, as set forth.

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

BENJAMIN F. ROBERTS.

Witnesses:

J. P. LAYTON,

W. T. KELLEY.