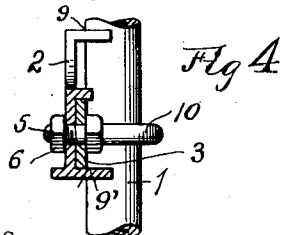
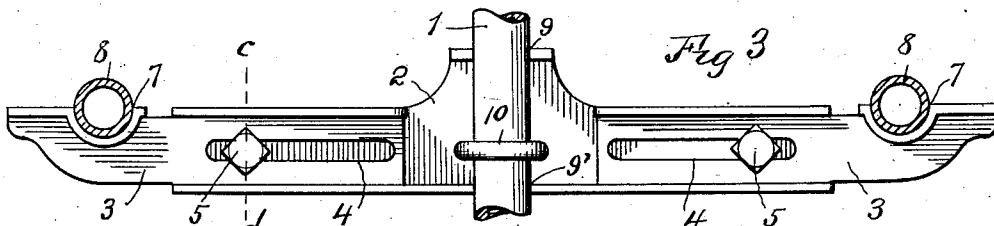
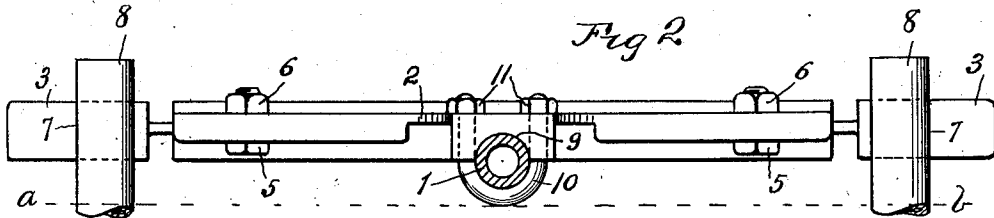
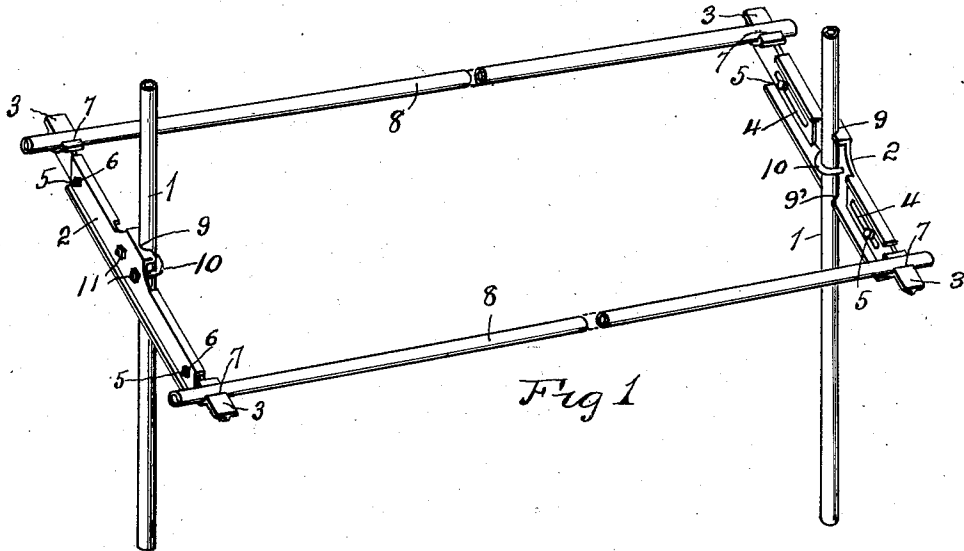


M. H. SMITH.
 ADJUSTABLE SHELF.
 APPLICATION FILED JULY 28, 1911.

1,021,432.

Patented Mar. 26, 1912.



WITNESSES:

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UNITED STATES PATENT OFFICE.

MICHAEL H. SMITH, OF KANSAS CITY, MISSOURI.

ADJUSTABLE SHELF.

1,021,432.

Specification of Letters Patent. Patented Mar. 26, 1912.

Application filed July 28, 1911. Serial No. 641,541.

To all whom it may concern:

Be it known that I, MICHAEL H. SMITH, a citizen of the United States, residing at Kansas City, in the county of Jackson and State of Missouri, have invented certain new and useful Improvements in Adjustable Shelves, of which the following is a specification.

My invention relates to improvements in adjustable shelves.

The object of my invention is to provide a shelf which can be readily adjusted as to width and height.

The novel features of my invention are hereinafter fully described and claimed.

In the accompanying drawings, which illustrate one form of my invention, Figure 1 is a perspective view of my improved shelf. Fig. 2 is an enlarged top view of a part of the shelf. Fig. 3 is a vertical sectional view on the line *a-b* of Fig. 2. Fig. 4 is a vertical section on the line *c-d* of Fig. 3.

Similar reference characters designate similar parts.

1, 1 denote two vertical posts which may be cylindrical or of other suitable form.

Mounted respectively on the two posts 1, and preferably vertically and circumferentially adjustable thereon are two cross supports, each comprising, preferably, a member 2 having a longitudinal channel in one side in which, at opposite sides of the adjacent post 1 are longitudinally slidably mounted two members 3, each having a longitudinal slot 4 through which extends a bolt 5 having mounted thereon a nut 6 by which the member 3 is clamped to the channel member 2 through which the bolts 5 extend. Each member 3 is provided, preferably, in its upper side with a semicircular notch or seat portion 7. Two horizontal members comprising preferably two tubular bars 8 are disposed respectively at opposite sides of the posts 1 and are mounted in the notches 7, as shown in Fig. 1.

Each channel member 2 is provided with two notches 9 and 9' disposed one above the other at one side of the member and in which is mounted the adjacent post 1. Two U bolts 10 embrace respectively the posts 1 and extend respectively through the channel members 2 between the notches 9 and 9'. On the U bolts 10 are mounted nuts 11 by which the members 2 are clamped to the posts 1. By loosening the nuts 11 the mem-

bers 2 may be vertically or circumferentially adjusted on the posts 1.

Boxes or other articles to be supported may be placed upon the members 8, which may be disposed at suitable distances apart by longitudinal adjustment of the members 3 in the members 2.

I do not limit my invention to the structure described and shown as modifications, within the scope of the appended claims, may be made without departing from the spirit of my invention.

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

1. In an adjustable shelf, a cross support comprising two members one of which is provided with a longitudinal channel, the other member being slidably fitted in the channel and having an upwardly facing semicircular seat portion, the channel member having two notches one above the other, means for clamping the two members together, a vertical post mounted in said two notches, and clamping means for engaging the post and channel member between said two notches.

2. In an adjustable shelf, a cross support comprising an intermediate member having a horizontal channel, two longitudinally adjustable members mounted in said channel, and clamping means for securing the longitudinally adjustable members to the intermediate member, the intermediate member having two notches one above the other, a vertical post mounted in said notches, and clamping means intermediate of the notches for securing the intermediate member to the post.

3. In an adjustable shelf, two vertical posts, two cross supports comprising each two members one of which has a longitudinal channel, the other member being longitudinally adjustable in said channel, and means for clamping the two members together, the channel member having two notches one above the other in which the adjacent post is mounted, the other member having an upwardly facing seat portion, means intermediate of the notches of the channel members for clamping the channel members to said posts respectively, and a horizontal bar mounted in said seat portions.

4. In an adjustable shelf, two vertical posts, two cross supports comprising each

an intermediate member having a horizontal channel, two longitudinally adjustable members mounted in said channel, and clamping means for securing the adjustable members to the intermediate member, the intermediate members each having two notches disposed one above the other in which is mounted the adjacent post, the longitudinally adjustable members having each an upwardly facing seat portion, means intermediate of the notches of each intermediate member for clamping the in-

intermediate member to the adjacent post, and two horizontal bars mounted respectively at opposite sides of said posts in the seat portions of adjacent longitudinally adjustable members. 15

In testimony whereof I have signed my name to this specification in presence of two subscribing witnesses.

MICHAEL H. SMITH.

Witnesses:

E. B. HOUSE,

FLORENCE M. VENDIG.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."
