

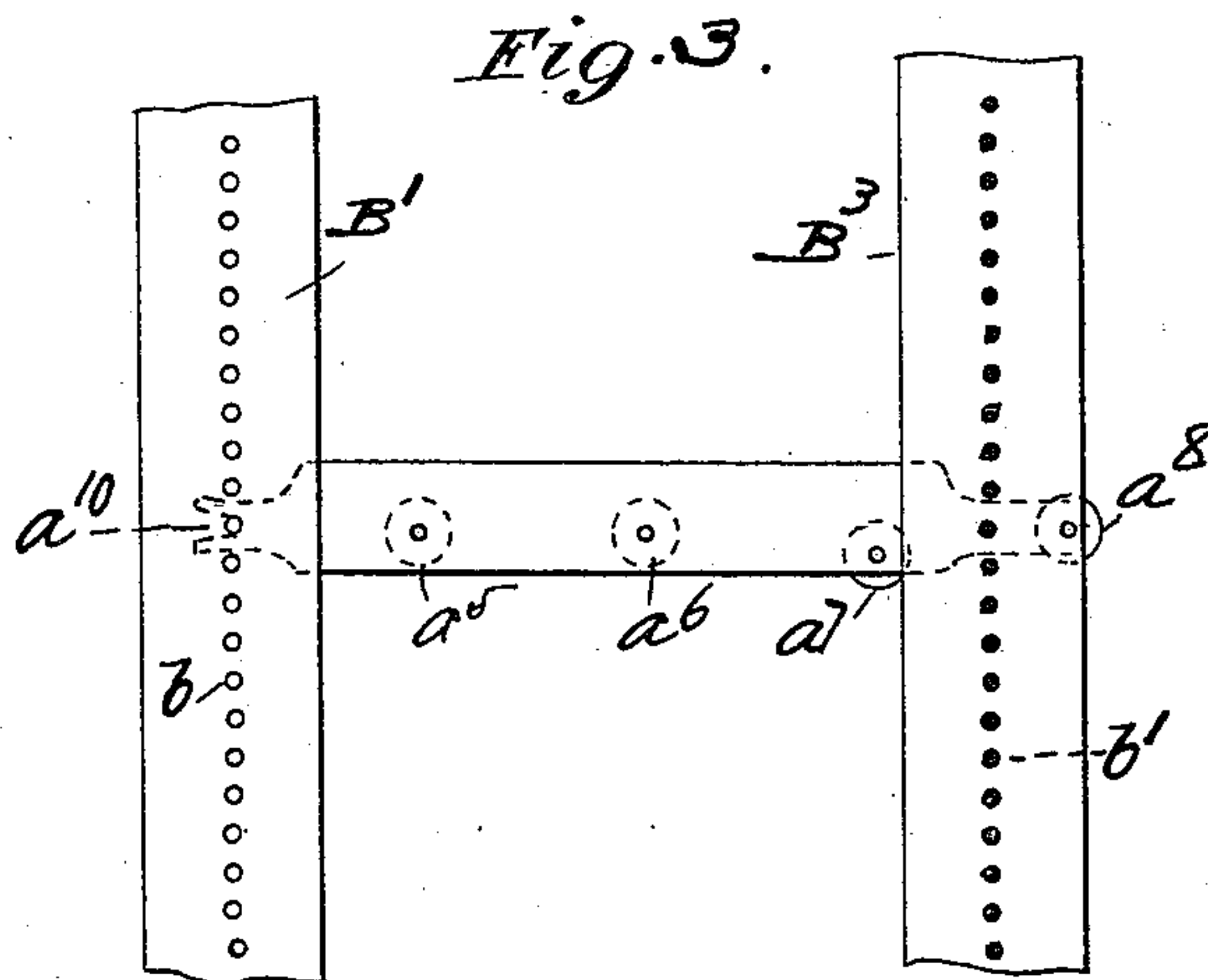
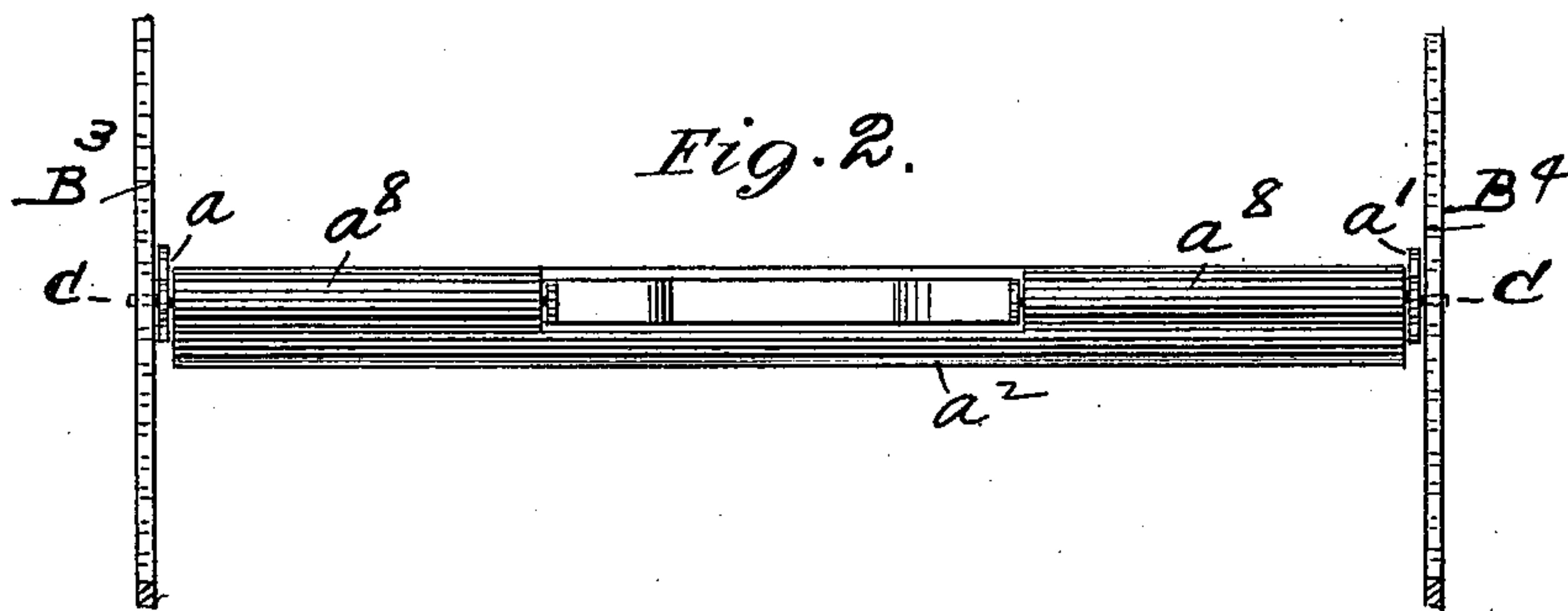
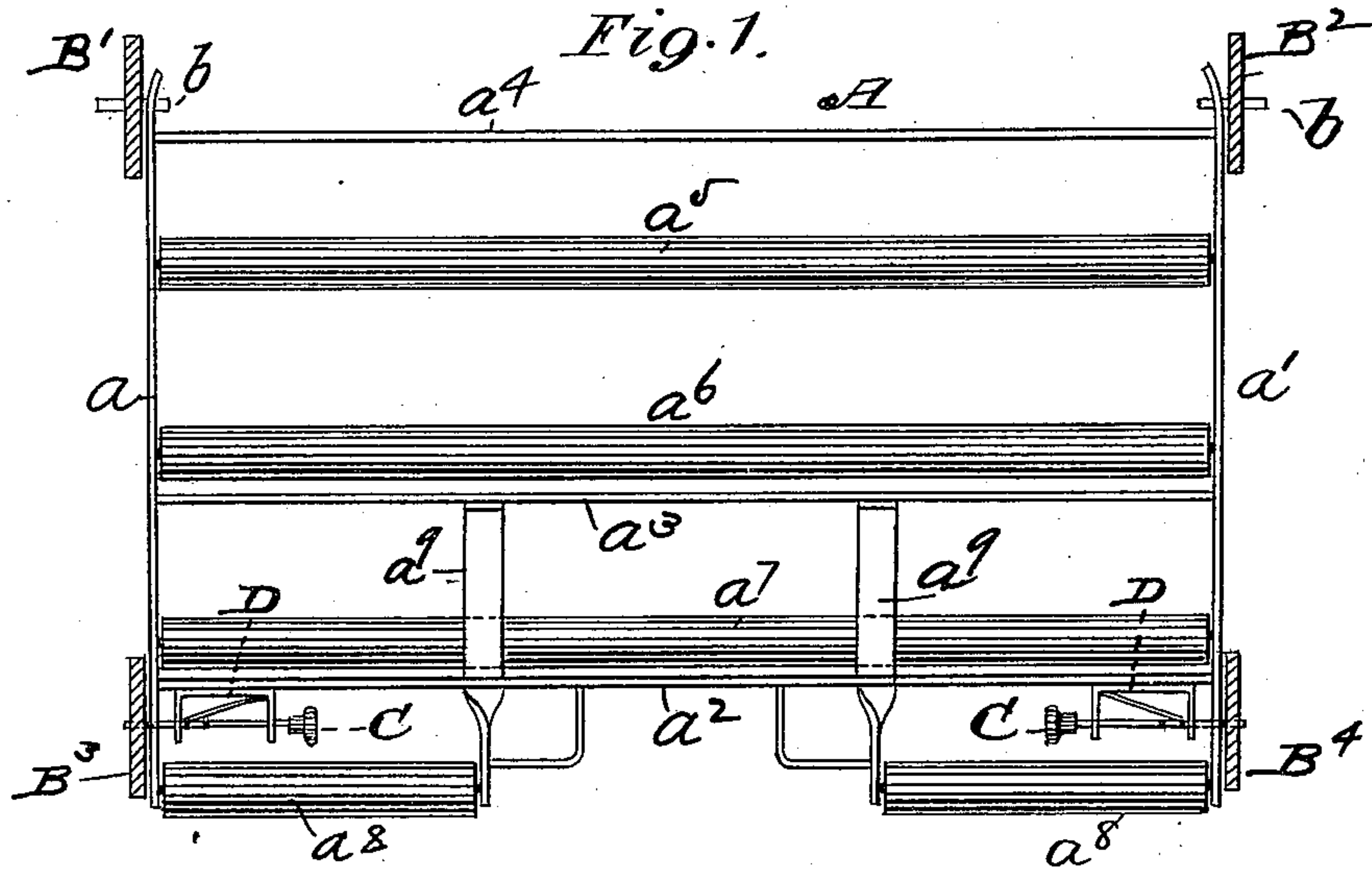
(No Model.)

2 Sheets—Sheet 1.

E. H. BABBITT.
ROLLER BOOK SHELF.

No. 420,898.

Patented Feb. 4, 1890.



WITNESSES
J. W. Sanford
B. F. Ry

INVENTOR
Edmond H. Babbitt
by C. C. Moody
att'y

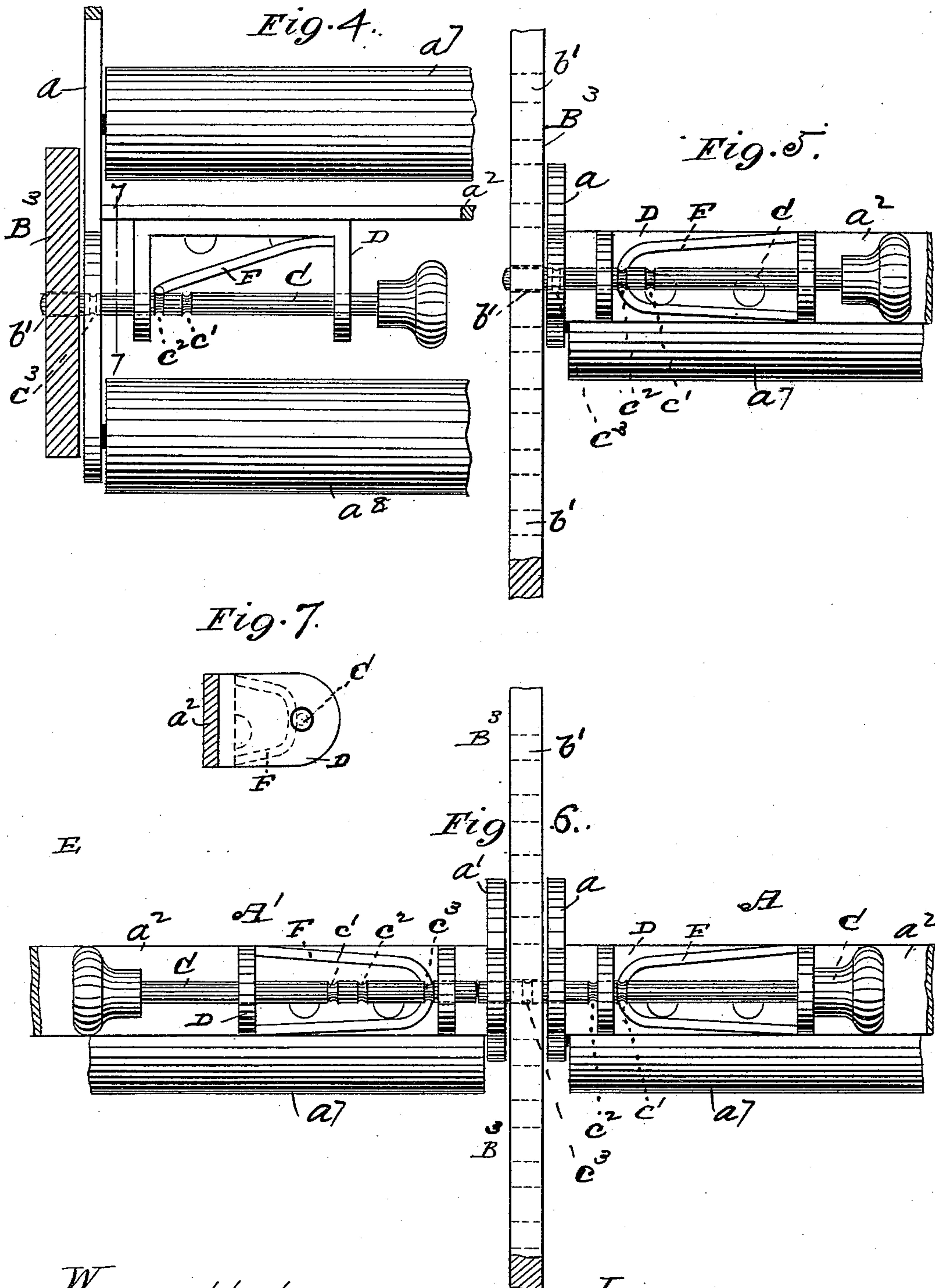
(No Model.)

2 Sheets—Sheet 2.

E. H. BABBITT.
ROLLER BOOK SHELF.

No. 420,898.

Patented Feb. 4, 1890.



WITNESSES
J. Masanoff
B. F. Ry

INVENTOR
Edmond H. Babbitt
by C. D. Moody
att'y

UNITED STATES PATENT OFFICE.

EDMOND H. BABBITT, OF ST. LOUIS, MISSOURI, ASSIGNOR TO THE GEO. D. BARNARD & COMPANY, OF EAST ST. LOUIS, ILLINOIS.

ROLLER BOOK-SHELF.

SPECIFICATION forming part of Letters Patent No. 420,898, dated February 4, 1890.

Application filed July 31, 1889. Serial No. 319,328. (No model.)

To all whom it may concern:

Be it known that I, EDMOND H. BABBITT, of St. Louis, Missouri, have made a new and useful Improvement in Roller Book-Shelves, of which the following is a full, clear, and exact description.

The improvement relates to the means used in upholding the shelf in the uprights of the book case or rack, substantially as is herein-
after described and claimed, aided by the annexed drawings, making part of this specification, in which—

Figure 1 is a plan of a shelf to which the improvement is adapted. Its supports are shown in horizontal section; Fig. 2, a front elevation of the same; Fig. 3, a side elevation of the same; Figs. 4, 5, 6, and 7, views, upon an enlarged scale, of that part of the construction with which the improvement is immediately connected, Fig. 4 being a plan, Fig. 5 a front elevation, Fig. 6 a front elevation, but showing an additional shelf, and Fig. 7 a section on the line 7 7 of Fig. 4.

The same letters of reference denote the same parts.

The shelf A, Figs. 1, 2, 3, 4, 5, and 6, saving as it may be modified or supplemented by the improved feature under consideration, is of any of the customary forms to which the improvement is adaptable; and I desire not to be restricted to any one of such forms in carrying out the improvement. The particular form shown, however, is considered the most desirable. Its side bars are shown at a a' , its cross-bars at a^2 a^3 a^4 , its rollers at a^5 a^6 a^7 a^8 a^9 , and other roller-supporting bars at a^9 a^9 . The uprights of the case or rack are shown at B' B^2 B^3 B^4 .

The shelf at its inner end is supported by notching its side bars at a^{10} , Fig. 3, and hanging the shelf upon pins b upon the rear uprights B' B^2 , as shown. The front uprights B^3 B^4 have perforations b' to receive the bolts C, which are the novel feature of the construction. What characterizes the bolt C is its adjustability. It can be arranged in three positions. (Shown, respectively, in Fig. 4, in the left-hand portion of Fig. 6, and in the right-hand portion of Fig. 6.) The bolt is held and adapted to be worked longitudinally in

suitable supports, such as the lugs or brackets D upon the cross-bar a^2 . When it is desired to free the shelf from the upright B^3 , the bolt is withdrawn into the position shown in the left-hand portion of Fig. 6. When it is desired to secure the shelf in the upright B^3 , the bolt is moved out to cause its end to engage in the opposing perforation b' in the upright, as shown in Figs. 4 and 5; and when it is desired to utilize the bolt for supporting not only the shelf A, to which it is fastened, but also another shelf A' at the same level, but in an adjoining tier E of the case or rack, the bolt is moved still farther outward, so that its end extends through the upright B^3 , and then through the side bar of that other shelf A', as shown in the right-hand portion of Fig. 6. It is important that the bolt in each of its positions be secured so that it cannot be jarred out of place. To this end, as the most desirable means therefor, the bolt is grooved at three points c' c^2 c^3 , in connection with which a spring-latch F is adapted to act. The positions of the grooves c' c^2 c^3 , respectively, conform to the described positions in which the bolt may be adjusted. When the bolt is withdrawn into its innermost position, the latch engages in the outermost groove. When the bolt is in engagement with the upright B^3 , only the latch engages in the middle groove, and when the bolt is engaging in both the upright and the shelf A' the latch engages in the innermost grooves, substantially as shown in the various figures. The use of these bolts is not restricted to the front or outer end of the shelf.

The side bars a a' are provided with perforations which may be brought to register with any one of the perforations of the corresponding uprights B^3 or B^4 , so that the bolts C can pass through said registering perforations and can thereby uphold adjacent ends of two shelves. This is shown in Fig. 6, in which A A' are two adjacent shelves on the same level, and the bolt C on the right hand passes through registering perforations in the upright B^3 and in the side bar a' of the shelf A', thereby upholding both shelves A and A'. The bolt C can, by means of its spring-latch

F and its grooves c' , c^2 , and c^3 , be held to support both shelves or one shelf only, or it can be held to support neither.

I claim—

5 1. The combination, with the rear uprights having the pins b , and the front uprights having the perforations b' , of the shelf having the side bars a a' , notched at their rear ends to engage the pins b , and perforated
10 near their front ends to register with the perforations b' , the rollers having suitable bearings in the side rails and frame, and the bolts C, having bearings in the brackets D, and arranged to engage in registering perforations
15 in the side bars and corresponding uprights, substantially as specified.

2. The combination, with the shelves A A', having side bars a a' and rollers journaled in said side bars, the rear uprights having pins b to engage the notched rear ends of said 20 side bars, the perforated front uprights, the bolts C, having the three circumferential grooves c' c^2 c^3 , and having bearings in the brackets D, and the spring-latches arranged to engage in any one of said grooves.

Witness my hand this 27th July, 1889.

EDMOND H. BABBITT.

Witnesses:

C. D. MOODY,

C. C. LOGAN.