

(No Model.)

R. REACH.
VAULTING HORSE.

No. 438,640.

Patented Oct. 21, 1890.

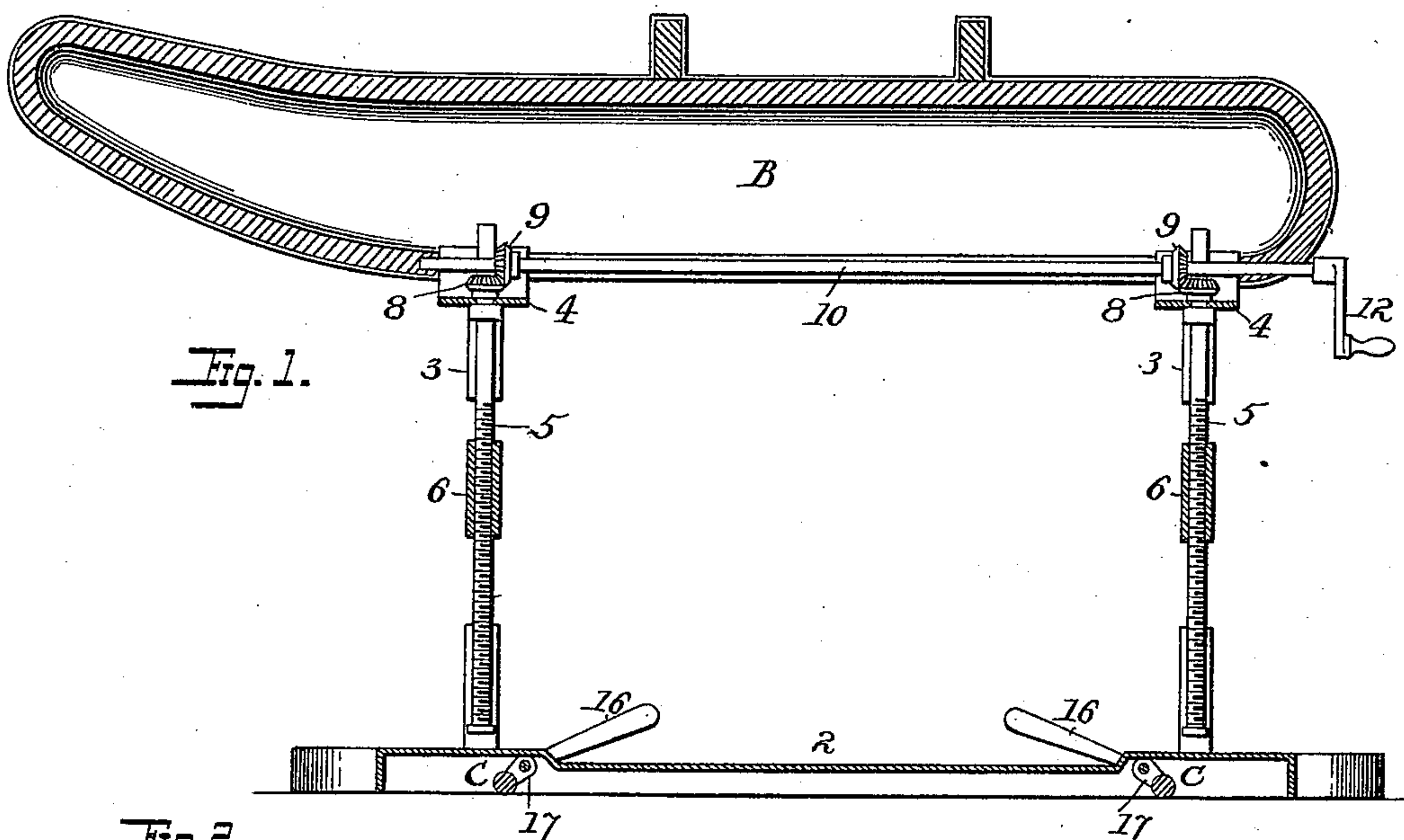


Fig. 2.

Fig. 3.

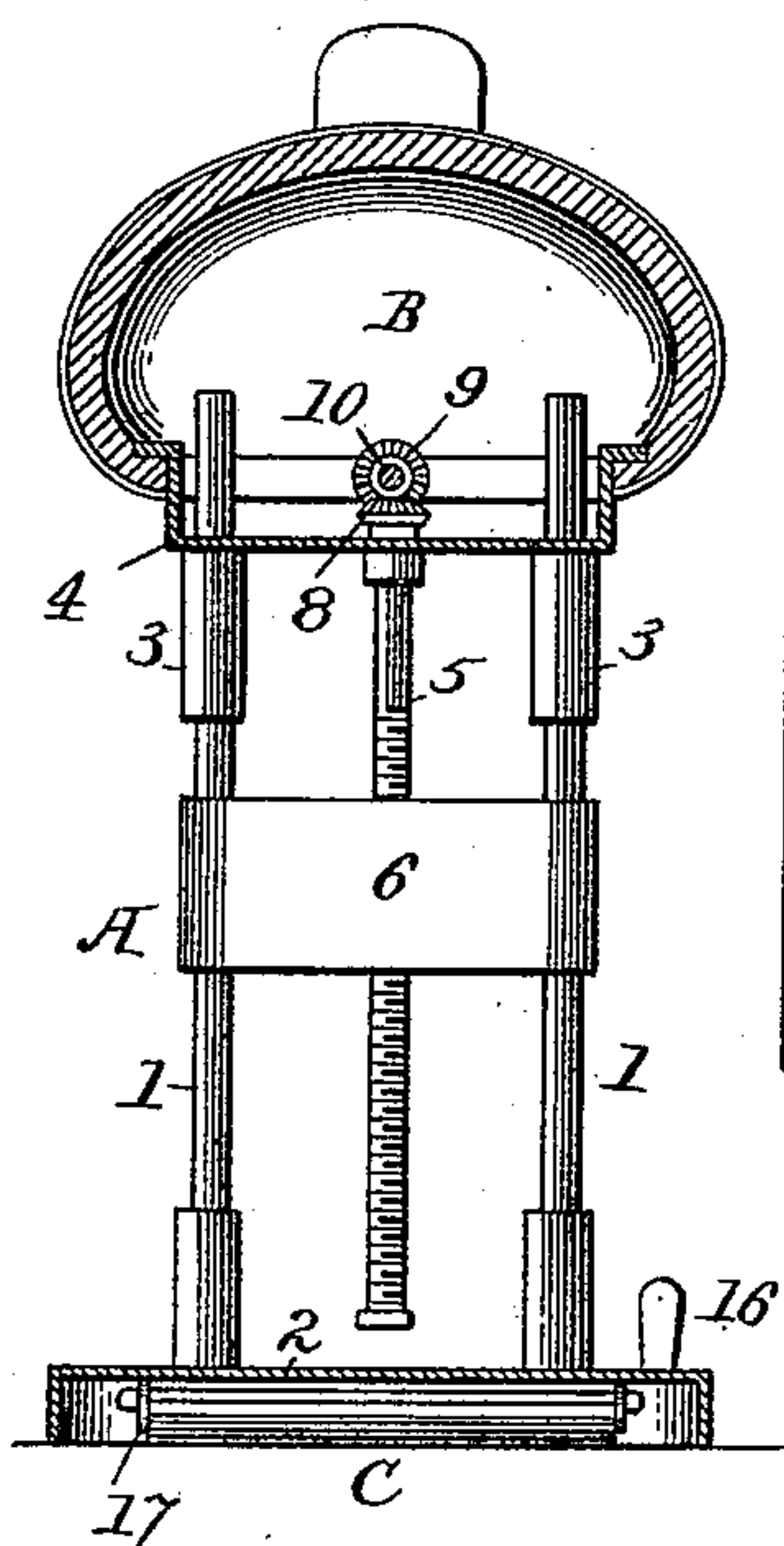


Fig. 4.

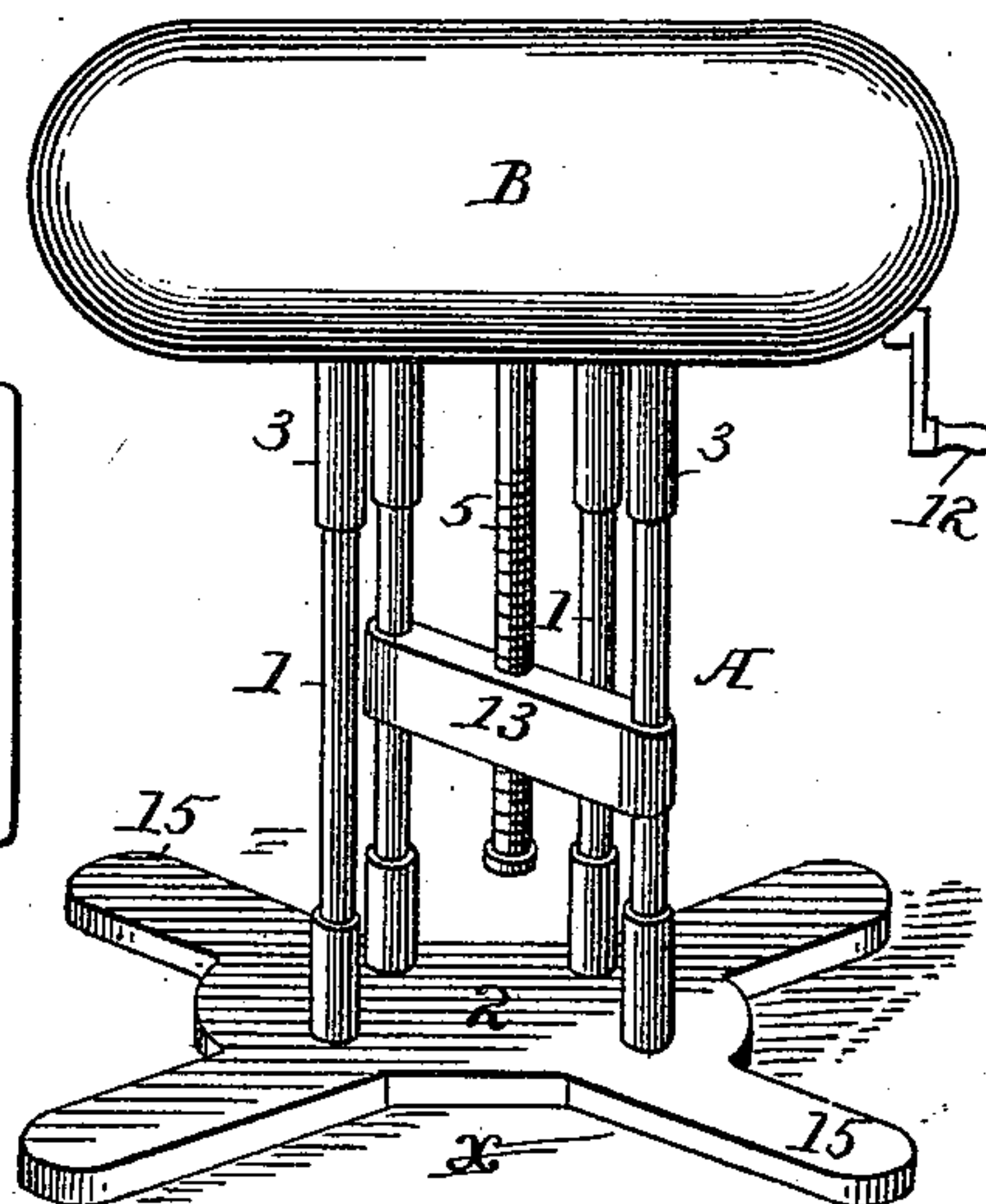
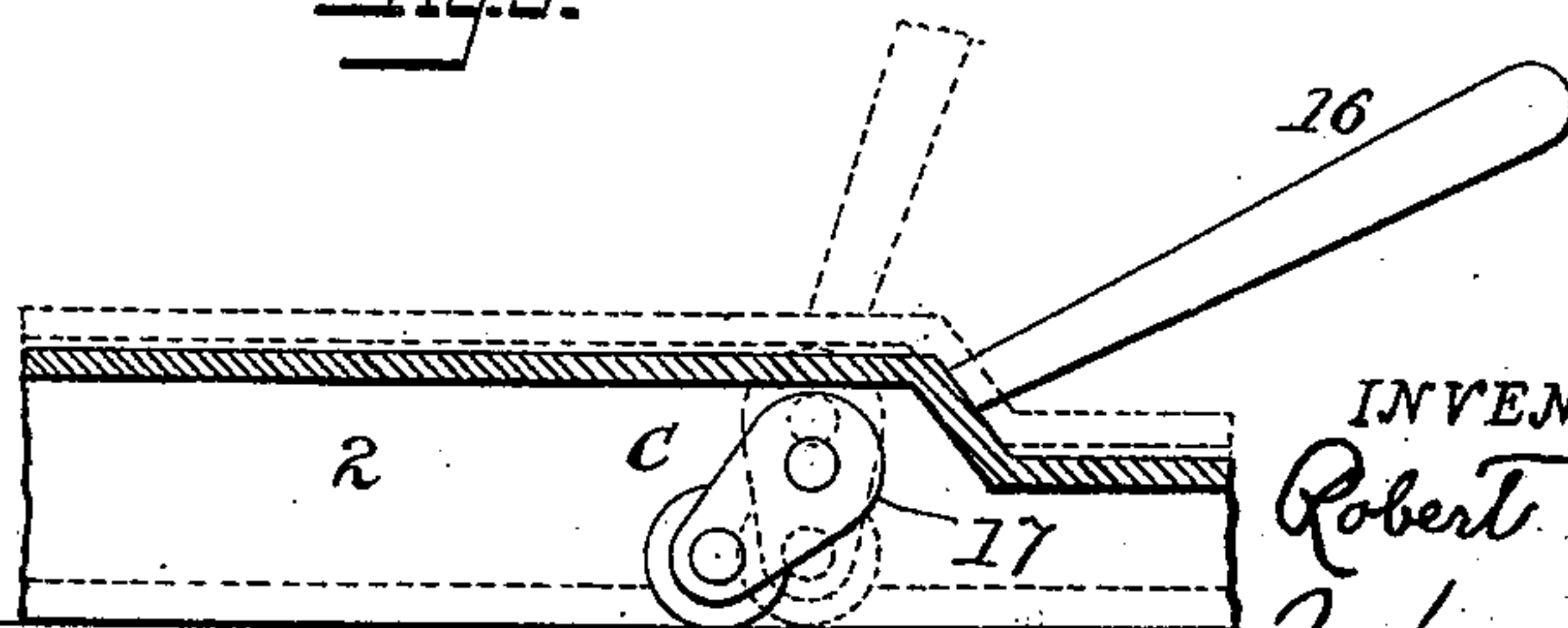


Fig. 5.



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UNITED STATES PATENT OFFICE.

ROBERT REACH, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO THE
AMERICAN PATENTS COMPANY, OF SAME PLACE.

VAULTING-HORSE.

SPECIFICATION forming part of Letters Patent No. 438,640, dated October 21, 1890.

Application filed July 14, 1890. Serial No. 358,652. (No model.)

To all whom it may concern:

Be it known that I, ROBERT REACH, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented certain new and useful Improvements in Vaulting-Horses, of which the following is a specification.

My invention is a vaulting-horse provided with means for adjusting the same vertically and otherwise constructed to increase its efficiency, as fully set forth hereinafter, and as illustrated in the accompanying drawings, in which—

Figure 1 is a longitudinal sectional elevation of a vaulting-horse embodying my improvements. Fig. 2 is a transverse section. Fig. 3 is a perspective view illustrating a modification. Fig. 4 is a plan showing a modified construction of the base. Fig. 5 is a sectional view showing the adjustable roller-support.

The body B of the horse is of any suitable construction and proportion. As shown, it is somewhat contracted toward one end and is provided with four legs A, which are extensible so as to permit the body of the horse to be raised and lowered. Thus, each leg A consists of a vertical bar or standard 1, firmly secured at the lower ends to the base 2, and of a sliding sleeve 3, which receives the upper end of the bar 1 and is connected firmly to the body B, as, for instance, to a block or cross-piece 4 thereof. As thus constructed, when the body is raised or lowered the tubular portion 3 of each leg will slide upon the other portion 1, acting as a guide and properly bracing the body whatever may be the position to which it is adjusted.

Suitable elevating devices are employed for raising and lowering the body, such devices, as shown, being vertical screws 5, each situated between one pair of legs and turning in a nut or cross-bar 6, that is secured to the standards 1 1, the upper end of the screw turning in the block or cross-piece 4. The screws may be turned simultaneously whereby to raise or lower the body by any suitable mechanism. As shown, each screw has at its upper end a bevel-wheel 8, engaging a similar wheel 9 upon a shaft 10, extending longitudinally through the body and provided with

an angular end to receive a crank-handle 12, whereby both gears may be turned to rotate the screws at the same time.

In the construction illustrated in Fig. 3, but a single elevating-screw 5 is used, and in this case the cross-piece or guide 13 is supported by the diagonally-opposite legs and the screws 5 5 are revolved by means of the shaft and gears, as in the other construction.

Instead of making the base of bars placed at right angles to each other in the form of a rectangular plate, I construct it of bars crossed to form an X or of a plate cut away to form recesses *x x* at the opposite sides, as shown in Fig. 4, or with a narrow longitudinal piece and diagonal arms or extensions 15, as shown in Fig. 3, whereby the base is out of the way of the gymnast, so he can vault from a position upon the floor, or so that the spring-board may be brought forward into the recess *x* close to the body, while the expanded end bearings afford a stable support for the structure.

While in apparatus of this kind it is essential that the base rest directly upon the floor during the time that the apparatus is in use, it is also desirable to permit it to be readily shifted from place to place, for which purpose I provide the base with vertically-adjustable roller-supports C, each of which turns in a swinging hanger 17 at the under side of the base, which may be of cast metal and flanged at the edges, forming a recess in which the hanger may swing from a horizontal position when in the floor to a vertical position when the base is to be moved. The hangers may be swung to vertical positions by external handles 16.

Without limiting myself to the precise construction and arrangement of parts shown, I claim—

1. The combination, with the body of a vaulting-horse, of two or more vertically-adjustable supports and adjusting devices, and means for operating the adjusting devices of all the supports simultaneously from a single point, substantially as set forth.

2. The combination, with the body of a vaulting-horse, of extensible supporting-legs and independent elevating means, substantially as described.

3. The combination of the body of a vaulting-horse, vertical supporting-legs, and vertical screws and nuts for raising the said body and supporting it in its position, substantially as described.

4. The combination of the body of a vaulting-horse, adjusting devices consisting of screws and nuts, and a horizontal shaft and gears for turning each of the screws, substantially as described.

5. The combination of the body of a vaulting-horse and a base recessed at *xx* adjacent to the sides of the horse and expanded to form wide end bearings, for the purpose set forth.

6. The combination, with the base, of the pivoted hangers carrying rollers in their free ends, and the handle for moving the hangers to lift the base from and lower it to the floor, substantially as described.

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

ROBERT REACH.

Witnesses:

A. W. KIDDLE,
WM. A. REDDING.