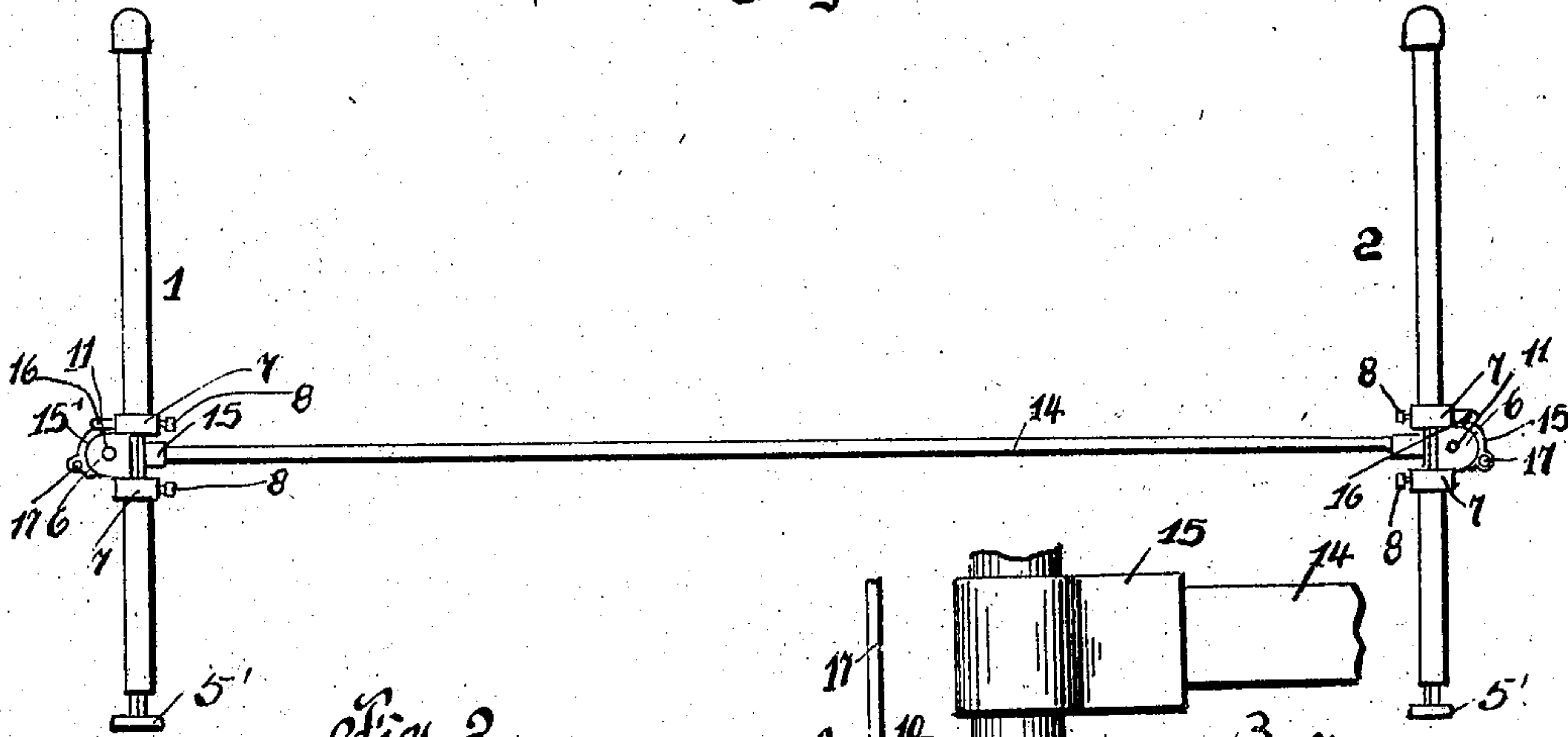


No. 815,715.

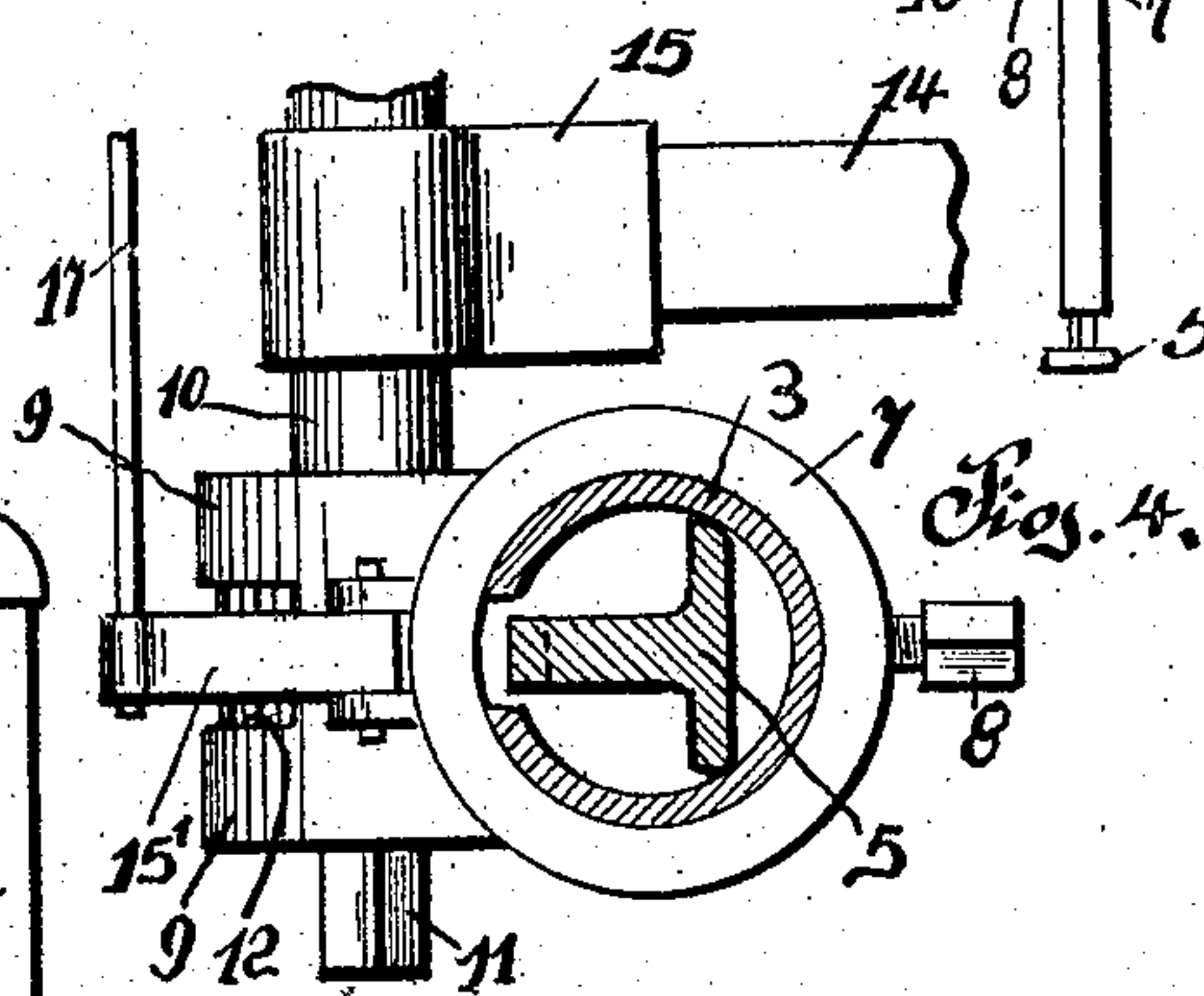
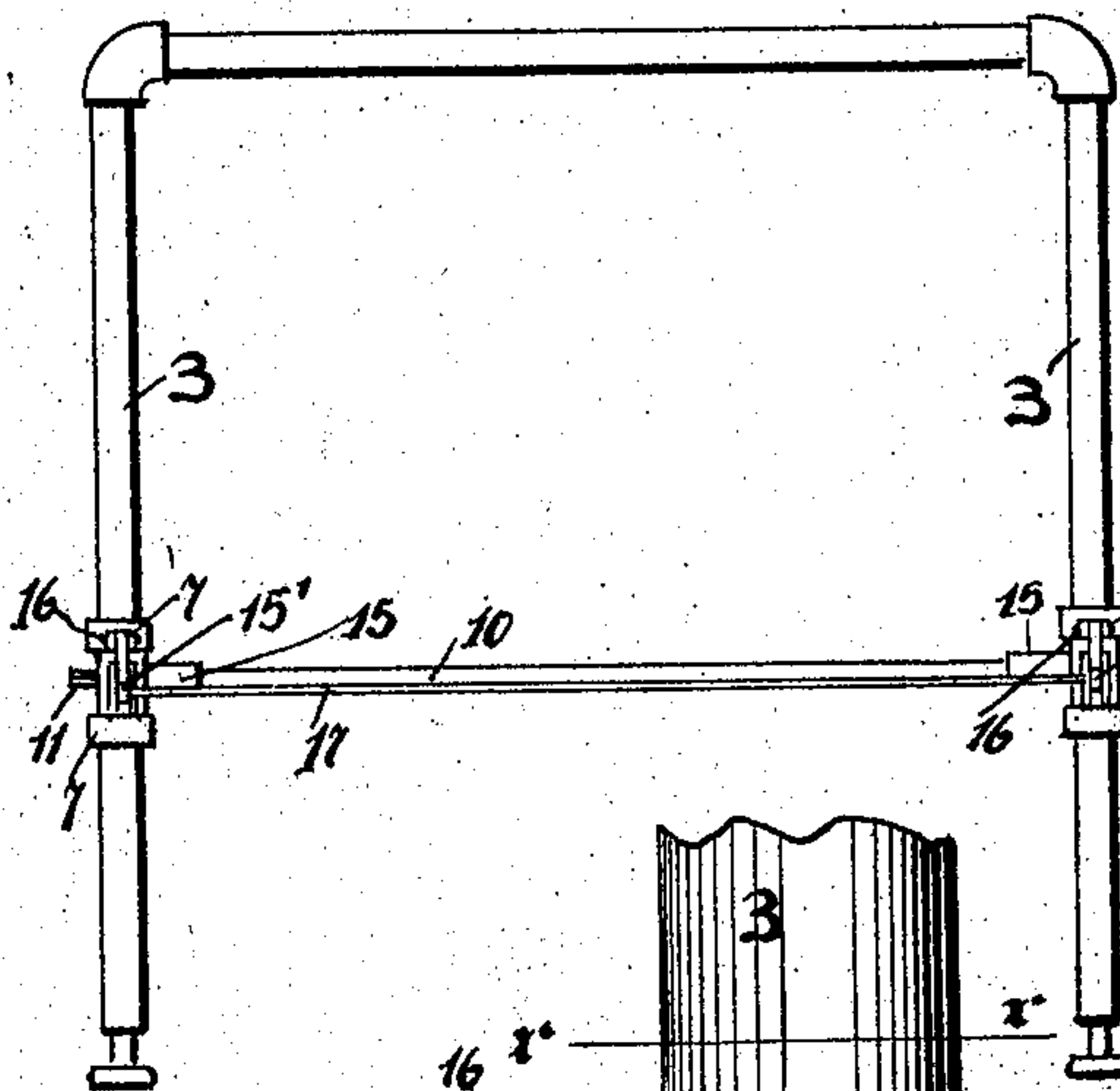
PATENTED MAR. 20, 1906.

A. KRUGER.  
INVALID BED, COT, AND TABLE.  
APPLICATION FILED OCT. 31, 1905.

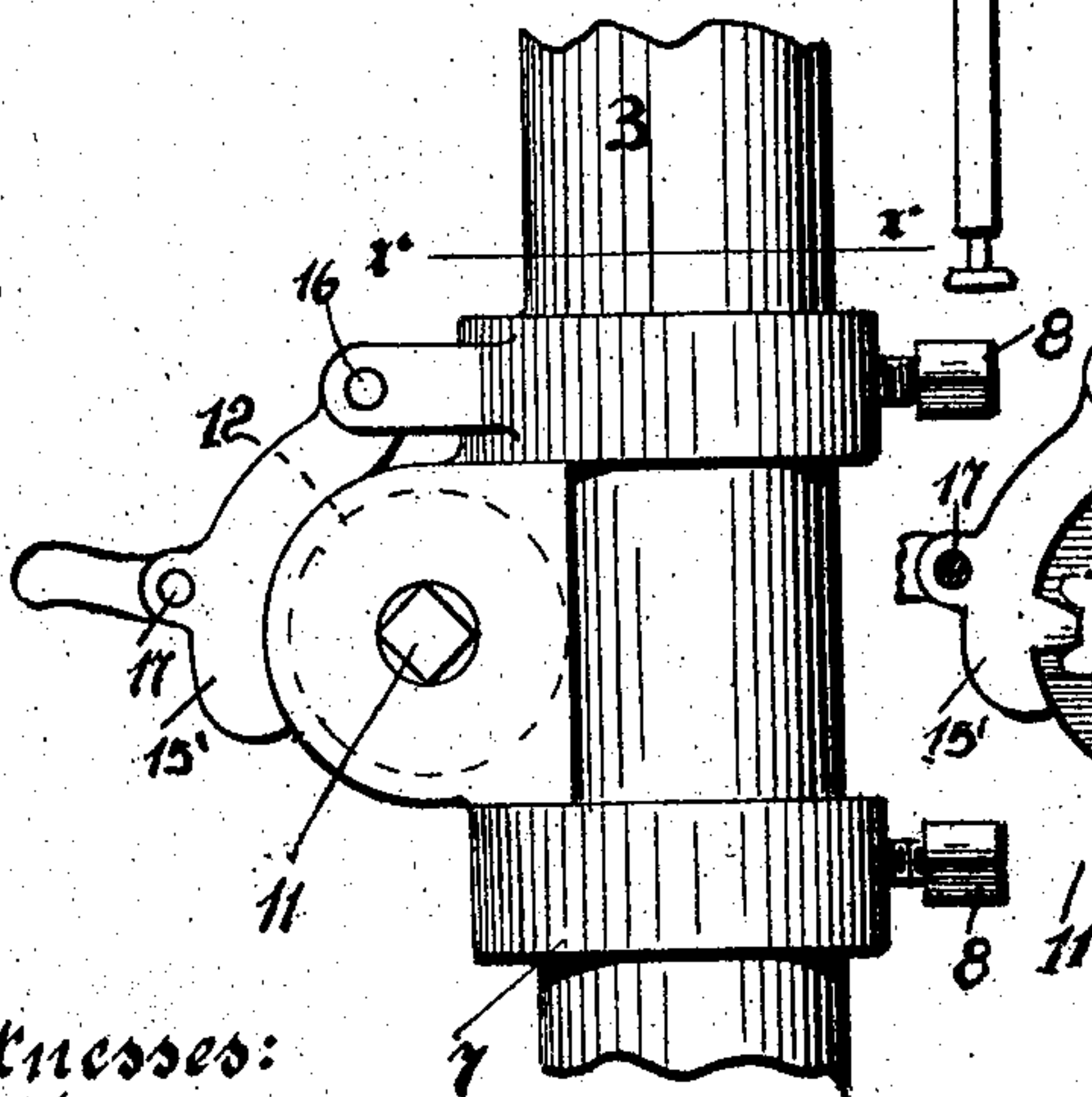
*Fig. 1.*



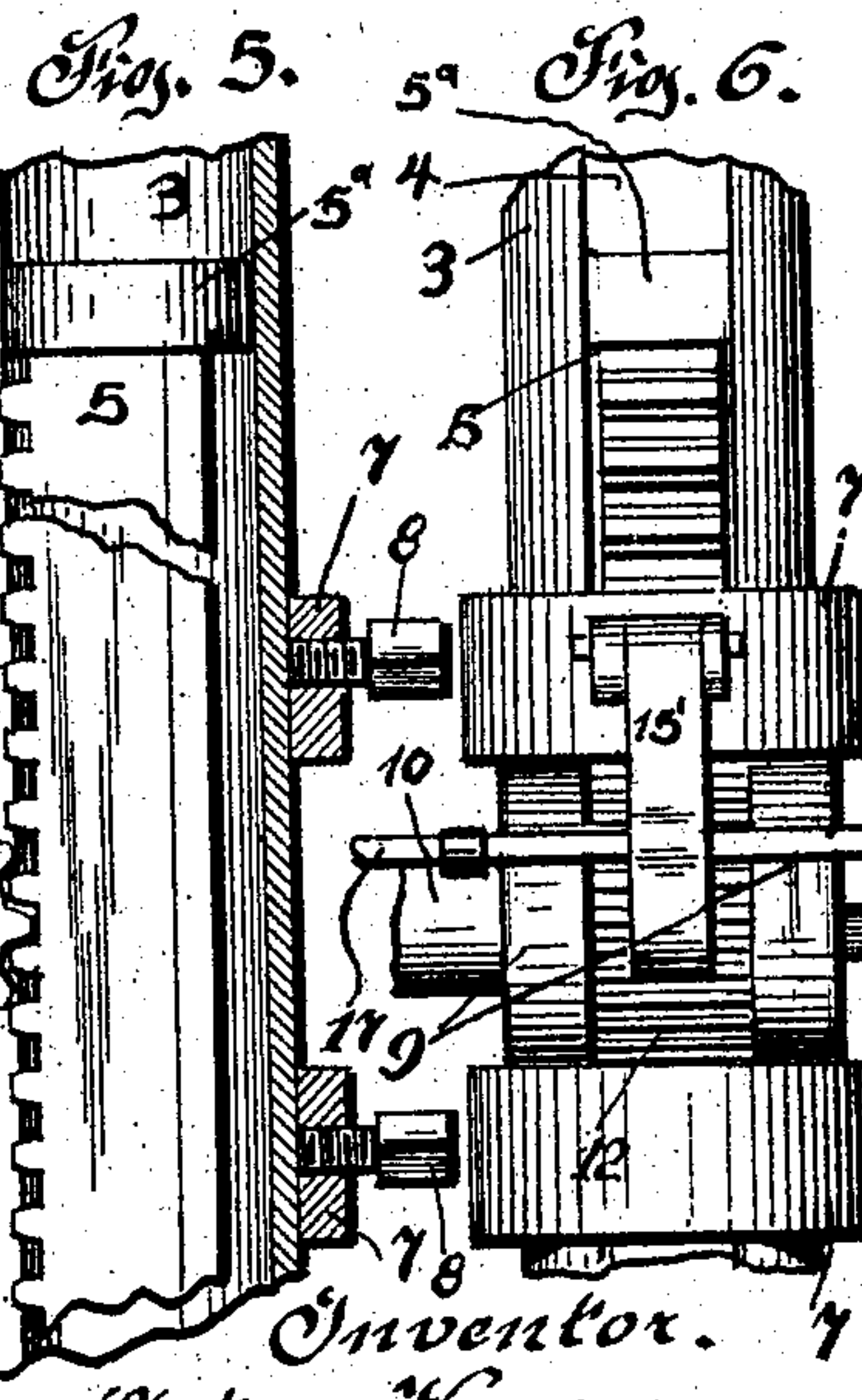
*Fig. 2.*



*Fig. 4.*



*Fig. 3.*



Inventor.  
Anton Kruger.

Witnesses:  
C. Klostermann  
H. K. Butler

by H. C. Ewert & Co.  
Attorneys.



# UNITED STATES PATENT OFFICE

ANTON KRUGER, OF ALLEGHENY, PENNSYLVANIA.

## INVALID BED, COT, AND TABLE.

No. 815,715.

Specification of Letters Patent.

Patented March 20, 1906.

Application filed October 31, 1905. Serial No. 285,294.

*To all whom it may concern:*

Be it known that I, ANTON KRUGER, a citizen of the United States of America, residing at Allegheny, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Invalid Beds, Cots, and Tables, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to certain new and useful improvements in invalid beds, cots, and tables; and the invention has for its primary object the provision of novel means for elevating a bed or the like structure.

My invention, while particularly adapted for a bed, can be readily used in connection with cots, operating-tables, and the like structures, where it is often necessary that the bed or table be elevated or lowered to properly position a person lying upon the same. To this end I have constructed a novel form of bed wherein an elevating mechanism is used in connection with each post of the bed for raising and lowering the frame of the bed. The elevating mechanism which I employ can be easily and quickly operated without jarring the frame of the bed during its movement, the mechanism being positive in its action and free from all danger of being injured by constant use.

With the above and other objects in view, which will more readily appear as the nature of the invention is better understood, the same consists in the novel construction, combination, and arrangement of parts to be hereinafter more fully described and then specifically pointed out in the claims, and, referring to the drawings accompanying this application, like numerals of reference designate corresponding parts throughout the several views, in which—

Figure 1 is a side elevation of a bed constructed in accordance with my invention. Fig. 2 is an end view thereof. Fig. 3 is an enlarged fragmentary side elevation of one of the posts of the bed. Fig. 4 is a cross-sectional view taken on the line *x x* of Fig. 3. Fig. 5 is a vertical sectional view of one of the posts of the bed, and Fig. 6 is an edge view of the same.

To put my invention into practice, I construct the head and tail pieces 1 and 2 of the bed of tubing, the posts 3 of said bed being provided with vertically-disposed slots 4, and extending upwardly within the tubing of each

post is a rack 5, having an enlarged end 5', which serves as a foot or caster for the bed.

Each one of the posts 3 of the bed approximately intermediate its ends is provided with an elevating mechanism consisting of a casing 6, carrying bands 7 7, said bands being secured to the posts 3 by set-screws 8 8 to permit of the casing 6 being adjusted upon said post. In the side walls 9 9 of the casing is journaled a transverse rod 10, one of said rods being positioned at the head of the bed, while another is positioned at the foot of the bed. The ends of the rods entering the casings 6 are rectangular in cross-section, as at 11, and upon the rectangular portions of the rods are mounted pinions 12, said pinions being adapted to extend through the vertically-disposed slots of the posts and engage the racks mounted in said posts. The rectangular portion 11 of each rod extends through the casing 6 to permit of a conventional form of crank-handle being placed upon the end of the rod to rotate it and the pinions 12. As the rods 10 are rotated they will be elevated, together with the posts of the bed, relative to the racks 5, mounted in said posts.

The side frames 14 14 of the bed are connected by sockets 15 to the rods 10 10, and in order to support the rods 10 10 and the side frames 14 14 in the position to which they are adjusted I employ a spring-pressed pawl 15', which is pivotally connected to each one of the casings 6, as at 16. The spring-pressed pawls of the casings at the head of the bed are connected together by a transverse actuating-rod 17, the pawls at the foot of the bed being connected in a similar manner.

When it is desired to elevate the frame of the bed, which consists of the rods 10 10 and the side frames 14 14, it is necessary to place a crank-handle (not shown) upon the projecting ends of the rods 10 10 and rotate said rods until the posts of the bed have been elevated the desired distance. The pivotally-mounted spring-pressed pawls 15' will recede as the pinions 12 travel upon the racks 5, and when the desired height has been reached the pinions will be locked in engagement with the racks by the pawls 15', said pawls engaging the pinions by gravity. I preferably construct the racks of T-iron, as clearly illustrated in Fig. 4 of the drawings, to add rigidity to said racks in order that the bed, together with its occupant or occupants, may be firmly supported.



By referring to Figs. 5 and 6 of the drawings it will be observed that I have provided the upper ends of the racks 5 with heads 5<sup>a</sup>, said heads serving functionally as piston-heads or cushions, and when the bed is lowered the heads are adapted to compress the air within the tubular posts and permit the bed to easily descend, thereby dispensing with a sudden dropping of the bed.

By adjustably connecting the casings 6 to the posts of said bed I am enabled to adjust said casings upon the head and foot pieces of the bed, the connection of the casings with the posts of the bed permitting said casings being removed at any desired time should they become broken or any part need renewing.

The sockets 15 may be pivotally mounted upon the rods 10 to permit of the head of the bed being elevated above the foot of the bed and, vice versa, to place the bed upon an incline.

My invention can be readily used in connection with operating-tables, where it is desired to elevate the table to permit of an operator easily working over said table, and in this connection the invention is intended to be used considerably in hospitals.

Such changes in the construction and operation of my improved bed as are permissible

by the appended claims may be resorted to without departing from the spirit and scope of the invention.

What I claim, and desire to secure by Letters Patent, is—

1. The combination with a bed having hollow or tubular posts, of a rack extending into each post, a casing adjustably secured to each post and connected together by rods and side rails, an elevating mechanism mounted in each casing and engaging said racks, means to lock said elevating mechanism in a fixed position, substantially as described.

2. The combination with a bed having hollow or tubular posts, said post having vertically-disposed slots formed therein, of racks extending upwardly within said posts and adapted to support said bed, elevating mechanism carried by each post and engaging said rack, said elevating mechanism being adjustable on the post, means to operate said elevating mechanism, means to lock said mechanism in a fixed position, substantially as described.

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

ANTON KRUGER.

Witnesses:

E. E. POTTER,  
H. C. EVERT.