

No. 708,543.

Patented Sept. 9, 1902.

J. GOODMAN.

ADJUSTABLE SHEAVE ARM FOR LEERS.

(Application filed July 5, 1901.)

(No Model.)

Fig. 1.

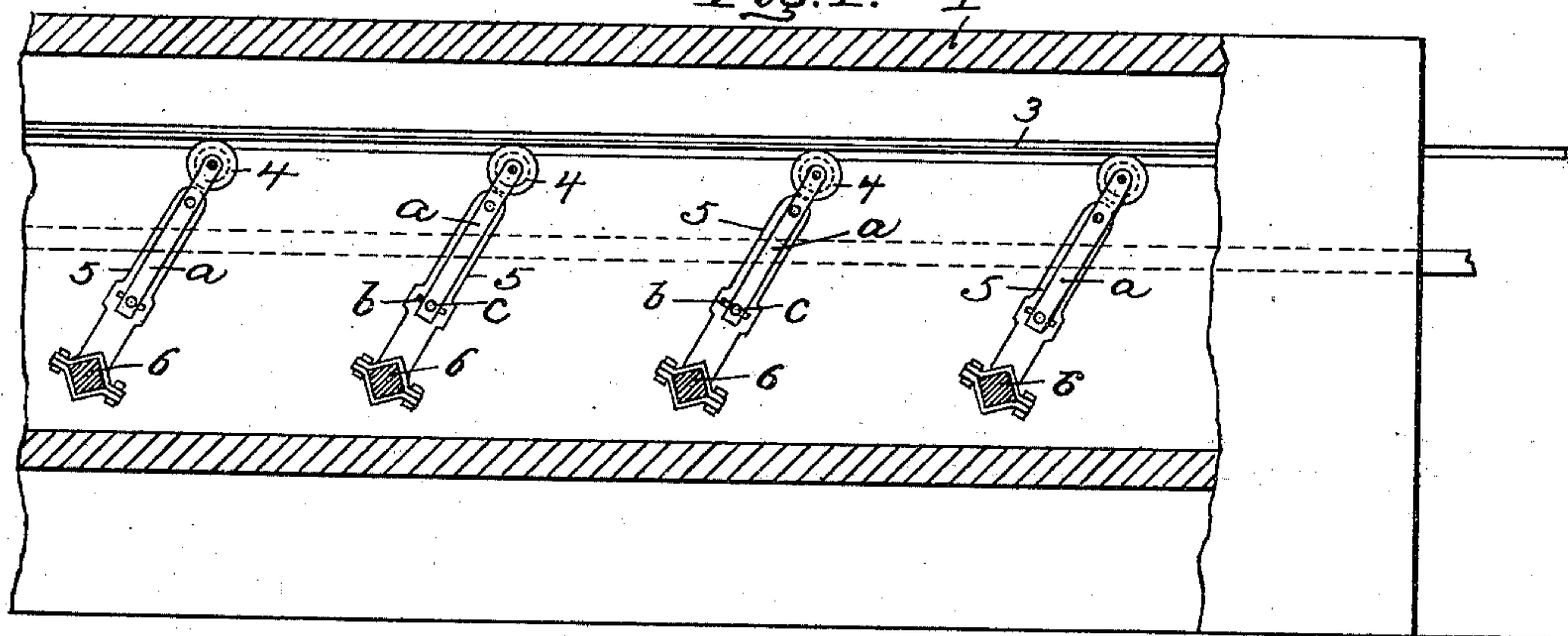


Fig. 2.

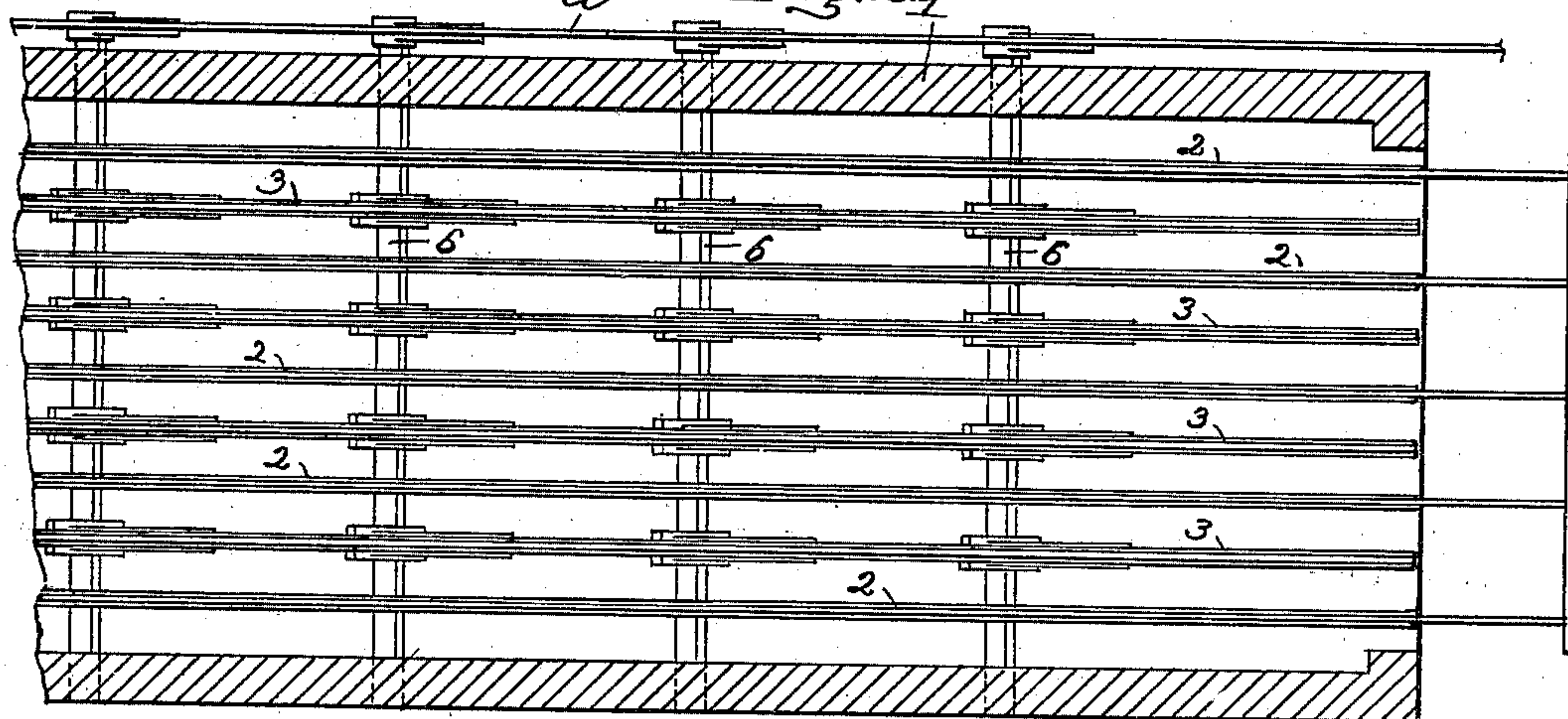


Fig. 3.

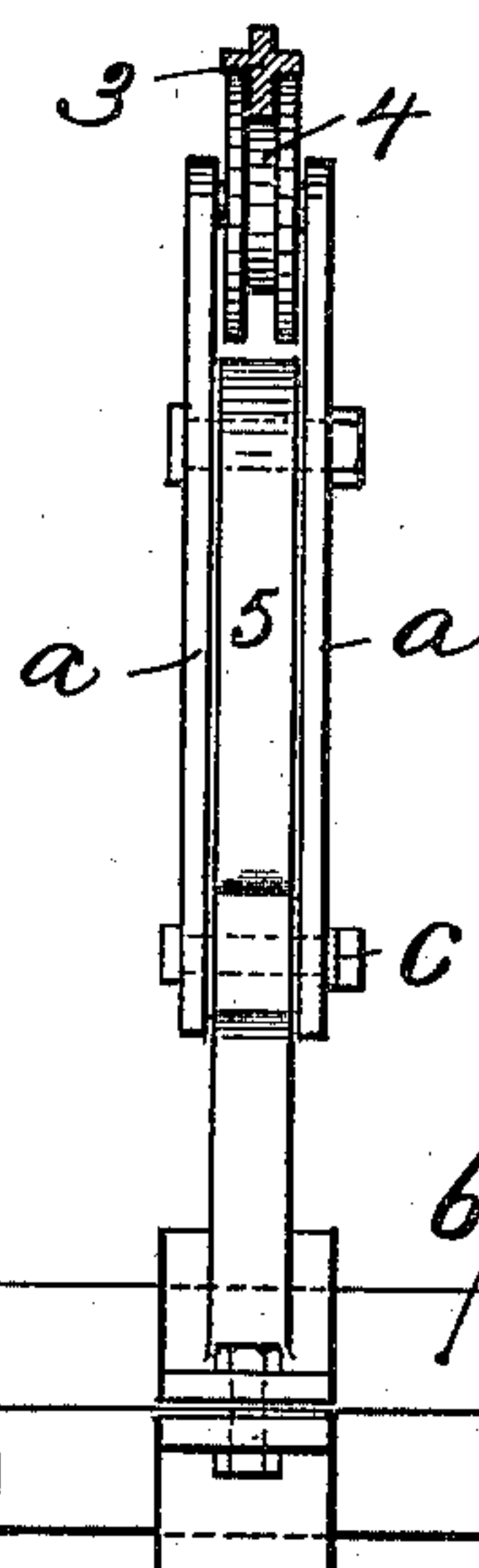
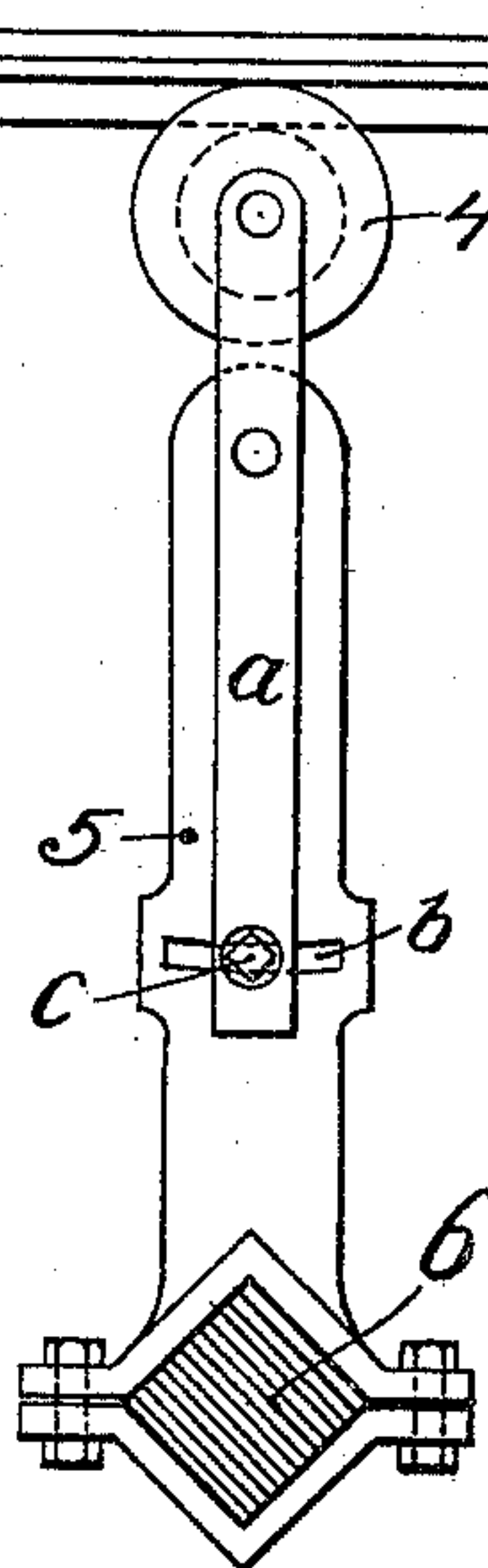


Fig. 4.

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# UNITED STATES PATENT OFFICE.

JOSEPH GOODMAN, OF PITTSBURG, PENNSYLVANIA.

## ADJUSTABLE SHEAVE-ARM FOR LEERS.

SPECIFICATION forming part of Letters Patent No. 708,543, dated September 9, 1902.

Application filed July 5, 1901. Serial No. 67,087. (No model.)

*To all whom it may concern:*

Be it known that I, JOSEPH GOODMAN, a citizen of the United States of America, residing at Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Adjustable Sheave-Arms for Leers, of which the following is a specification, reference being had to the accompanying drawings, which form a part of this specification, in which—

Figure 1 indicates a longitudinal section of a portion of a leer for annealing plate-glass. Fig. 2 is a horizontal section of the same. Fig. 3 is a side elevation of one of the adjustable sheaves and lever. Fig. 4 is an end view of the same.

My invention relates to mechanisms for holding plate-glass in annealing-leers.

The object of my invention is to provide improved mechanism for raising and lowering the bed-bars to different horizontal planes and for raising the plate-glass from the pulling-out bars; and to this end the invention comprises rockably-mounted arms having adjustable members carrying sheaves and adapted to swing in a vertical plane in the arc of a circle to provide for positioning of the bed-bars at different horizontal planes, as desired, and for raising the plate-glass from the pulling-out bars, as set forth in detail hereinafter and recited in the appended claims.

In the drawings, 1 is a long tunnel or leer, in which a series of horizontally-disposed bars or rods are arranged longitudinally. One set or series of bars 2 are called the "pulling-out" bars. The other set 3 are the bed-bars, which are mounted upon sheaves 4, journaled or carried in the outer ends of the adjustable members *a* of the sheave-arms 5. The sheave-arms are clamped securely upon the plurality of transversely-disposed bars 6, arranged at intervals in the leer and square in cross-section to prevent turning of the sheave-arms thereon. The number of arms corresponds with the number of bed-bars. Each sheave-arm is provided with a curved slot *b*, into which a pin *c* projects and to which the inner end of the adjustable member *a* of the lever is connected, the said adjustable member being pivoted to the arm at the end of the latter, and the said pin working in the slot being provided with a nut, whereby the member *a*

may when adjusted be securely fixed at any point in the arc of the circle in which the inner end of the member may be swung, whereby the sheave on the outer end of the swinging member is elevated and lowered for the purpose of adjusting the bed-bars mounted on the sheaves to different horizontal planes. The ends of the transverse bars 6 project through one of the side walls of the leer and are provided with arm 7 or coupled to a long rod *d*, which may be reciprocated by a suitable lever or other means (not shown) and the rock-bars caused to turn in unison in either direction and the bed-bars thus caused to be elevated or lowered at intervals to remove the glass at intervals from the pulling-out bars.

One of the advantages of my invention is that it can be very quickly and easily applied to the square transversely-disposed bars, and when applied it can be readily adjusted, whereby the whole series of levers and bars connected therewith are easily maintained in accurate horizontal alinement.

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

1. In an operating mechanism for leers, a rockably-mounted arm and a member pivoted to the arm and adapted to swing in the arc of a circle, and means for securing the pivoted member at different points in relation to the arm, after adjustment of the member.

2. In an operating mechanism for leers, a rockably-mounted arm having an arc-shaped slot, a member pivotally connected to the arm, and a bolt passing through the member and through the slot, whereby the member can be adjusted in the arc of a circle and secured where positioned.

3. In an operating mechanism for leers, the combination with a plurality of bed-bars, and a plurality of pulling-out bars, of a plurality of rockably-mounted arms adapted for supporting the bed-bars and for raising them up and down in relation to the pulling-out bars, and means for rocking the said arms.

4. In an operating mechanism for leers, the combination with a plurality of bed-bars and a plurality of pulling-out bars, of a plurality of rockably-mounted arms, means for rocking said arms, and members carrying sheaves

which support the bed-bars, said members being adjustably mounted on the arms so that the relative elevation of the bed-bars to the arms may be varied.

- 5 5. In an operating mechanism for leers, the combination with a plurality of bed-bars and a plurality of pulling-out bars, of a plurality of rockably-mounted arms having arc-shaped slots, members pivoted to the arms, sheaves  
10 on the members which support the bed-bars, and bolts passing through the members and

through the slots, whereby the members and sheaves can be swung in the arc of a circle and the bed-bars raised or lowered relative to the arms and means for rocking the arms. 15

In testimony whereof I have hereunto affixed my signature in the presence of two subscribing witnesses.

JOSEPH GOODMAN.

Witnesses:

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