

(No Model.)

5 Sheets—Sheet 1.

W. W. & A. KRUTSCH.
CAR SEAT.

No. 442,984.

Patented Dec. 16, 1890.

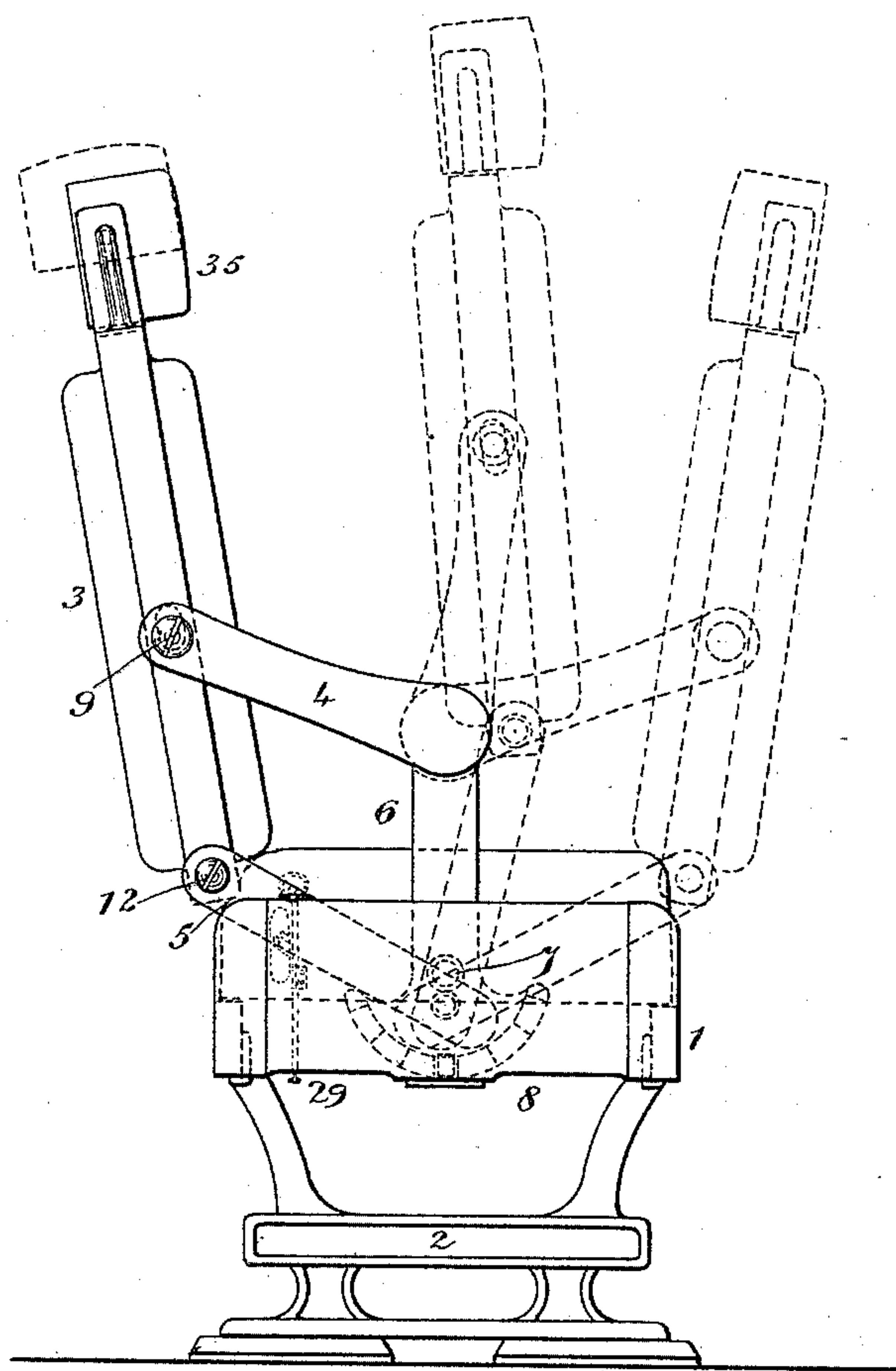


Fig. I.

Witnesses
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S. H. Knight.

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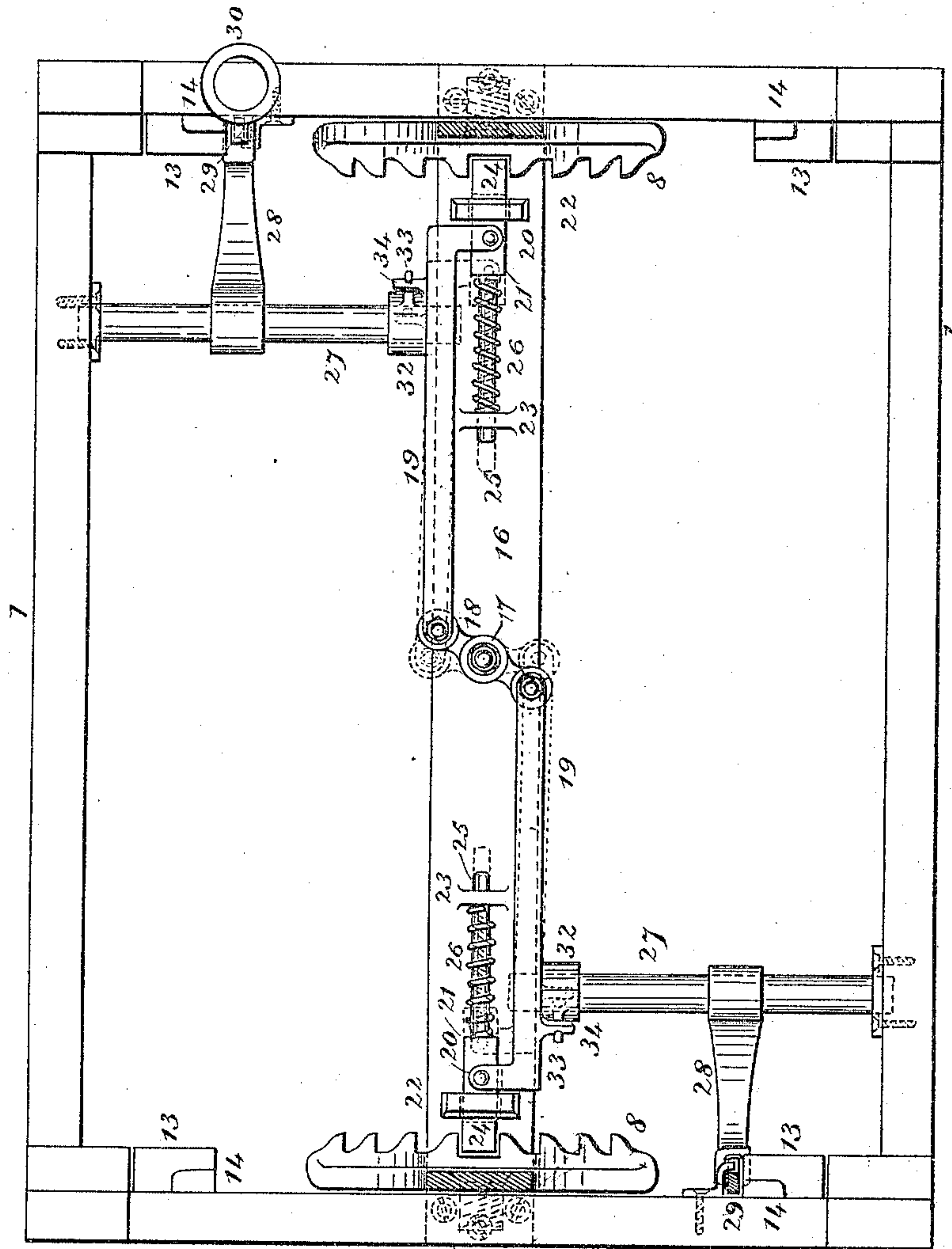


Fig. II.

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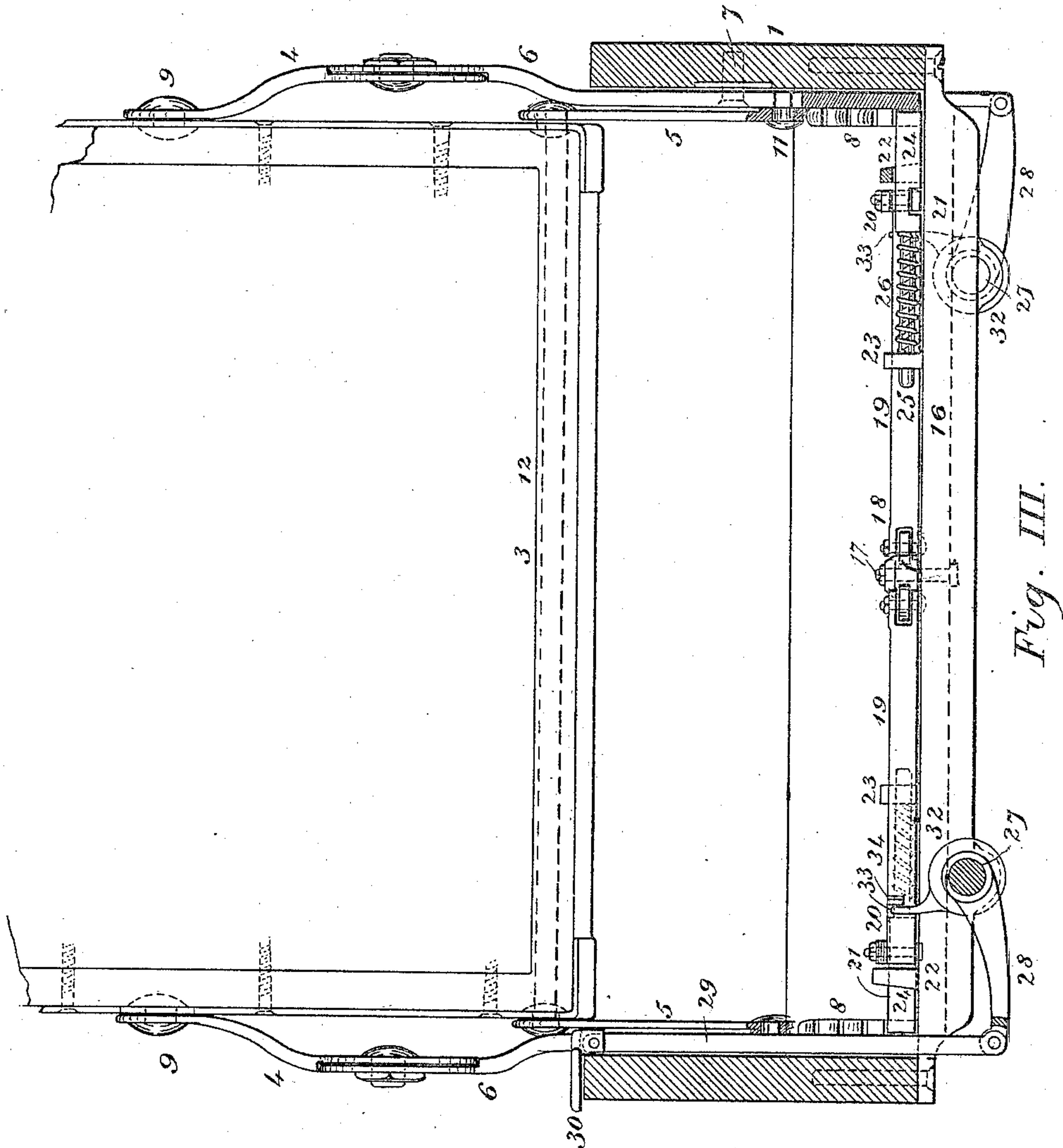


Fig. III.

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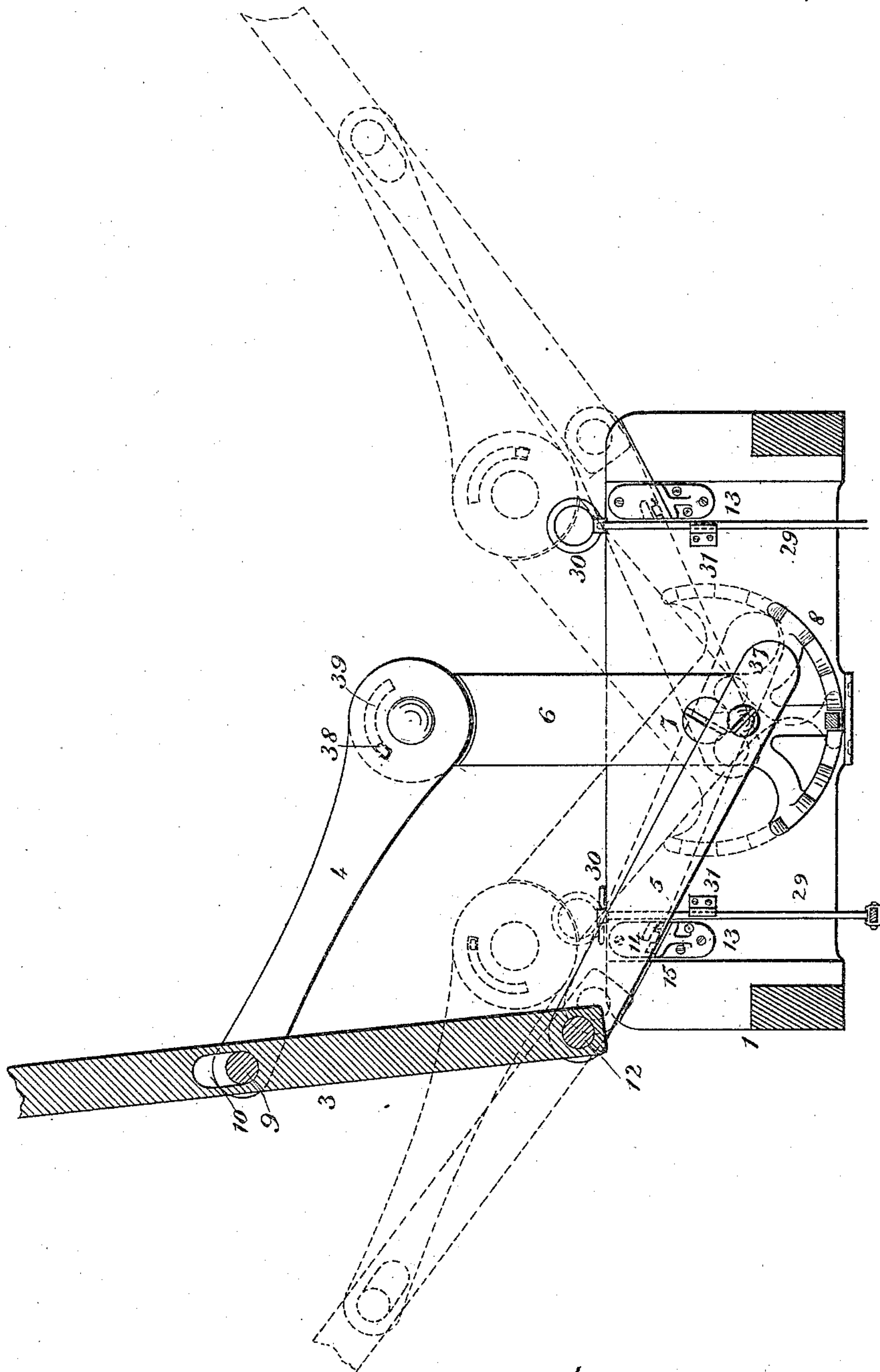


Fig. IV.

Witnesses.
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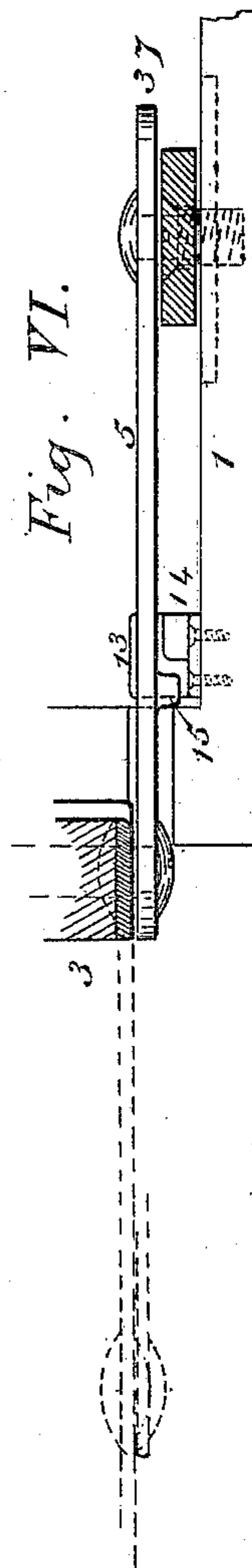
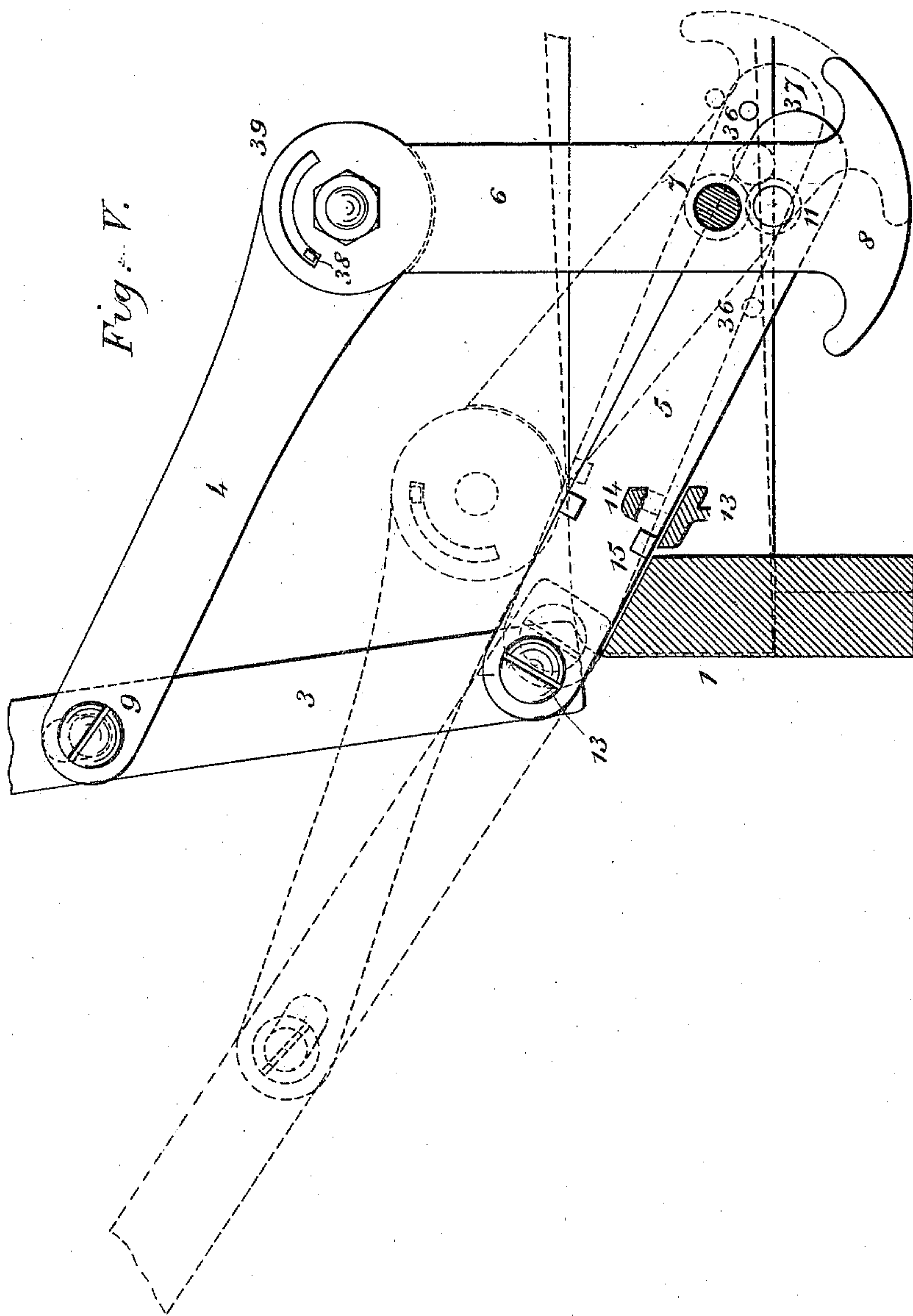
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CAR SEAT.

No. 442,984.

Patented Dec. 16, 1890.



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UNITED STATES PATENT OFFICE.

WILLIS W. KRUTSCH AND ANNA KRUTSCH, OF FORT SCOTT, KANSAS, ASSIGN-
ORS OF ONE-HALF TO CHARLES E. DOUGLAS AND JOHN THOMAS JONES,
OF SAME PLACE.

CAR-SEAT.

SPECIFICATION forming part of Letters Patent No. 442,984, dated December 16, 1890.

Application filed October 29, 1889. Serial No. 328,585. (No model.)

To all whom it may concern:

Be it known that we, WILLIS W. KRUTSCH and ANNA KRUTSCH, both of Fort Scott, in the county of Bourbon and State of Kansas, have invented certain new and useful Improvements in Car-Seats, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part of this specification.

Our invention relates to an improvement in the operation and adjustment of car-seats; and our invention consists of features of novelties hereinafter described, and pointed out in the claims.

Figure I is an end elevation of our improved chair. Fig. II is a top or plan view of the ratchet-operating mechanism. Fig. III is a vertical section showing the ratchet device. Fig. IV is a sectional view showing the back and its connections. Fig. V is a detail end view showing part in section. Fig. VI is a top view of Fig. V.

Referring to the drawings, 1 represents the supporting-frame mounted on the legs 2.

3 represents the back of the seat, which is supported in its position by the pivoted arms 4 and 5.

6 represents standards, which are pivoted at each end of the seat at a central point 7. At the lower ends of the standards 6 are crescent-shaped racks 8. At the upper ends of the standards are pivoted the inner ends of the arms 4, the outer ends of the arms 4 being adjustably secured to the back of the seat by a pin 9, which engages in a slot 10. The arms 5 are pivoted near their inner ends to the standards 6 at a point 11, the arms extending for a short distance beyond the pivotal point. The outer ends of the arms 5 are pivoted by a rod 12 to the lower edge of the back 3. The rod 12 runs the full length of the back of the seat, as shown in dotted lines in Fig. III, thus forming a connection between the arms 5 and the back of the seat that prevents the latter from wobbling while it is being reversed from one side to the other.

13 represents brackets secured to the ends of the frame on which the arms 5 rest. A short distance above the portion of the brackets on which the arms rest are lugs 14. On the arms 5 are lugs 15. These lugs are for the

purpose of holding the back of the seat down when it is in an inclined position. When the back of the seat is in an upright position, or in the position shown in full lines, Fig. V, the lugs 15 on the arms 5 will be out of engagement with the lugs 14 on the brackets 13, leaving the back of the seat free to be reversed to the other side; but when the back of the seat is placed in an inclined position, as shown in dotted lines in Fig. V, the lugs on the arms will pass into engagement with the lugs on the brackets, and the arms be thus held from rising until the back is returned to its upright position. The lugs on the arms are drawn into engagement with the lugs on the brackets by means of having the inner ends of the arms pivoted at a different center on the standards 6 from that to which the standards themselves are pivoted, so that as the standards are inclined the pivot-point 11 will move farther from the brackets 13, drawing the arms 5 along until the lugs 15 pass under the lugs 14, said lugs preventing the arms (and consequently the back) from rising as long as the back remains in an inclined position.

We will now describe the ratchet device whereby the back is held at any desired inclination.

16 represents a bar secured to the frame of the seat. (See Fig. II.) Pivoted at 17 to the center of the bar is a double-ended lever 18, to each end of which is pivoted rods 19. The other ends of the rods 19 are secured at 20 to spring-catches 21. The spring-catches are held in their proper position on the bar 16 by means of staples 22 23. The catches 21 are provided with squared portions 24, which engage with the teeth of the racks 8 on the standards 6. The catches are also provided with rounded portions 25, on which are placed coil-springs 26, the springs serving to hold the catches in engagement with the racks 8.

27 represents rods journaled in the frame.

28 represents levers, one end of which is secured rigidly to the rods 27. The free ends of these levers extend to a point on line with the inner side of the end frame.

29 represents vertical rods, which are pivoted at their lower ends to the free ends of the levers 28. These rods extend up until they are on line with the top of the frame,

and are provided with rings 30 or other suitable hand-holds. The rings are pivoted to the rods and fold down upon the frame, as shown in Fig. III, in order not to be in the way or to become broken, &c.

31 represents brackets, which guide the rods 29.

On the rods 27 are collars 32, which are provided with pins 33. When the person occupying the seat wishes to change the position of the back, he pulls upon the ring 30, which raises the free end of the lever 28, causing the rod 27 to rotate, thus causing the pin 33 to come in contact with a lug 34 on the spring-catch 21, forcing the catch backward out of engagement with the rack 8, permitting the inclination of the back to be changed or the same to be reversed, as may be desired. As soon as the ring is released the springs on the catches will force the catches back into engagement with the racks. It will be seen that the device for pressing the catches back is made in duplicate, so that the same may be convenient to the hand, and may be readily operated whichever side of the seat the back may be resting.

We provide the upper part of the back with a reversible head-rest 35, which may be changed into the various positions shown in Fig. I. When the back of the seat is tilted back to render the seat entirely comfortable, the body of the seat should be also tilted. To accomplish this we secure to the body of the seat pins 36, against which extensions 37 of the arms 5 come in contact when the back is being lowered into a reclining position, raising the forward end of the cushion or body of the seat to conform with the angle of the back. When it is desired to reverse the back, the back is first raised into the position shown in full lines in Fig. V. While it is being raised to this position lugs 38 on the inner ends of the arms 4, which engage in circular slots 39 in the upper ends of the standards 6, travel from the point shown in dotted lines at one end of the slot to the point shown in full lines at the other end of the slot. The object of these lugs is to stop the movement of the standards when they arrive at an upright position, where they are held by the spring-catches, as shown in Fig. II. The back is then swung over on the arms 4 5, as shown in dotted lines, Fig. I. The slot-and-pin connection of the outer ends of the arms 4 with the back are for the purpose of giving latitude to the arms 4 as the back is changed from one position to another. This is made necessary on account of the inner ends of the arms 5 not being pivoted to a fixed point.

We have shown and described but one seat; but two seats may be combined in the same frame, the arms and backs being a slight distance apart, so as not to interfere with each other in their working.

We claim as our invention—

1. In a car-seat, the combination of central standards pivoted to a seat-frame, a seat-

back the lower end of which is adapted to move inwardly when lowered, arms pivoted at one of their ends to the standards and having their other ends connected to the seat-back by a slot-and-pin connection, and means for supporting the seat-back and moving its lower edge inwardly, substantially as described, and for the purpose set forth.

2. In a car-seat, the combination of central standards pivoted to a seat-frame, a seat-back, upper arms pivoted at one of their ends to the seat-back by a slot-and-pin connection, the other end being pivoted to the standards and lugs on the arms, said lugs engaging in circular slots in the standards, and lower arms pivoted to the lower end of the seat-back and to the standards below their pivotal points, substantially as described, and for the purpose set forth.

3. In a car-seat, the combination of central pivoted standards and upper and lower arms connecting the standards with a seat-back, said lower arms having their inner ends pivoted to the standards at a point below the pivot-point of the standards, substantially as described, and for the purpose set forth.

4. In a car-seat, the combination of the standards pivoted to the frame, a seat-back, arms connecting the standards with the seat-back, one of said arms having an extension beyond its inner pivotal point, and a seat-body carrying pins against which the extensions bear in order to tilt the seat-body, substantially as described, and for the purpose set forth.

5. In a car-seat, the combination of the standards pivoted to a frame, a seat-back, arms 4 and 5, connecting the standards with the seat-back, brackets 13, secured to the frame, lugs 14 on the brackets, and lugs 15 on the arms 5, which may engage the lugs 14, substantially as described, and for the purpose set forth.

6. In a car-seat, the combination of the catches 21, rods 19, secured to the catches, lugs 34 on the rods, rods 27, pins 33 on the rods 27, and means for rotating said rods, substantially as described, and for the purpose set forth.

7. In a car-seat, the combination of the catches 21, rods 19, secured to the catches, lugs 34 on the rods, rods 27, pins 33 on the rods 27, and levers 28 on the rods 27, for the purpose of rotating the same, substantially as described, and for the purpose set forth.

8. In a car-seat, the combination of suitable catches for holding a rack, levers 28 for moving the catches, suitable means for connecting the levers with the catches, and rods attached to the levers for operating the same, substantially as described, and for the purpose set forth.

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ANNA KRUTSCH.

In presence of—

W. B. WEBSTER,
R. S. ALTER.