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PATENTED JUNE 5, 1906.

H. WITTE.
CAR SEAT.

APPLICATION FILED JULY 7, 1905.

2 SHEETS—SHEET 1.

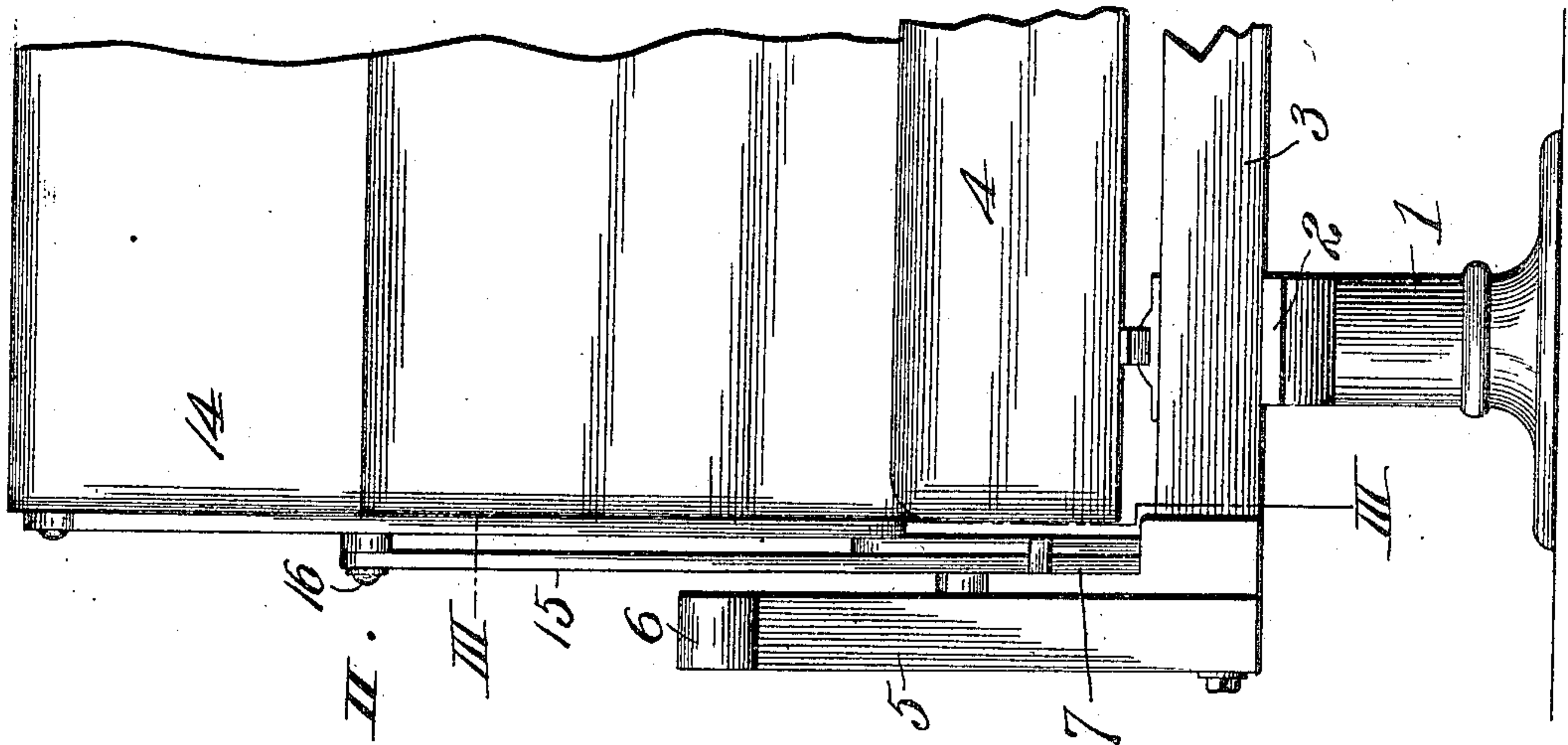


Fig. II.

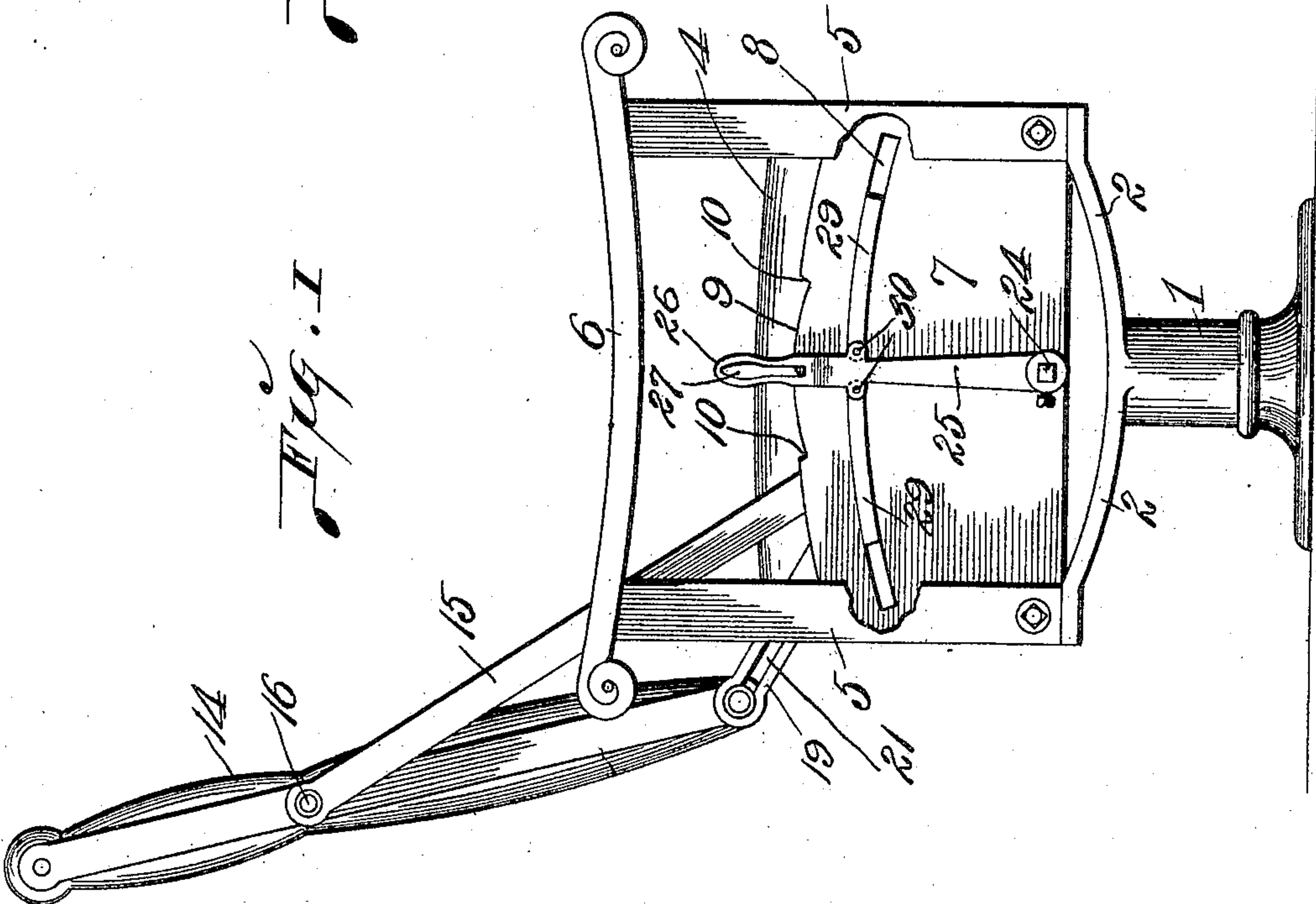


Fig. I.

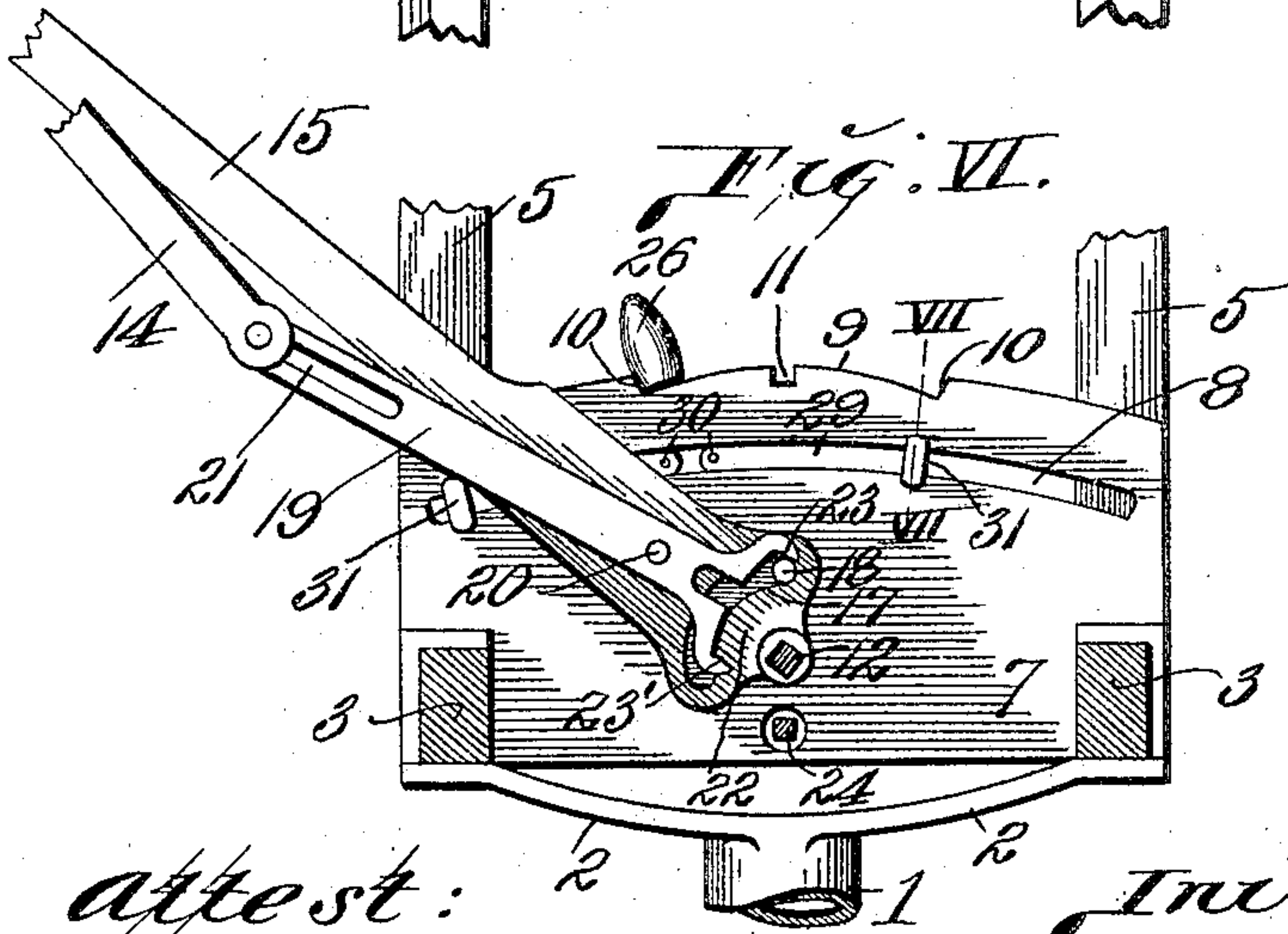
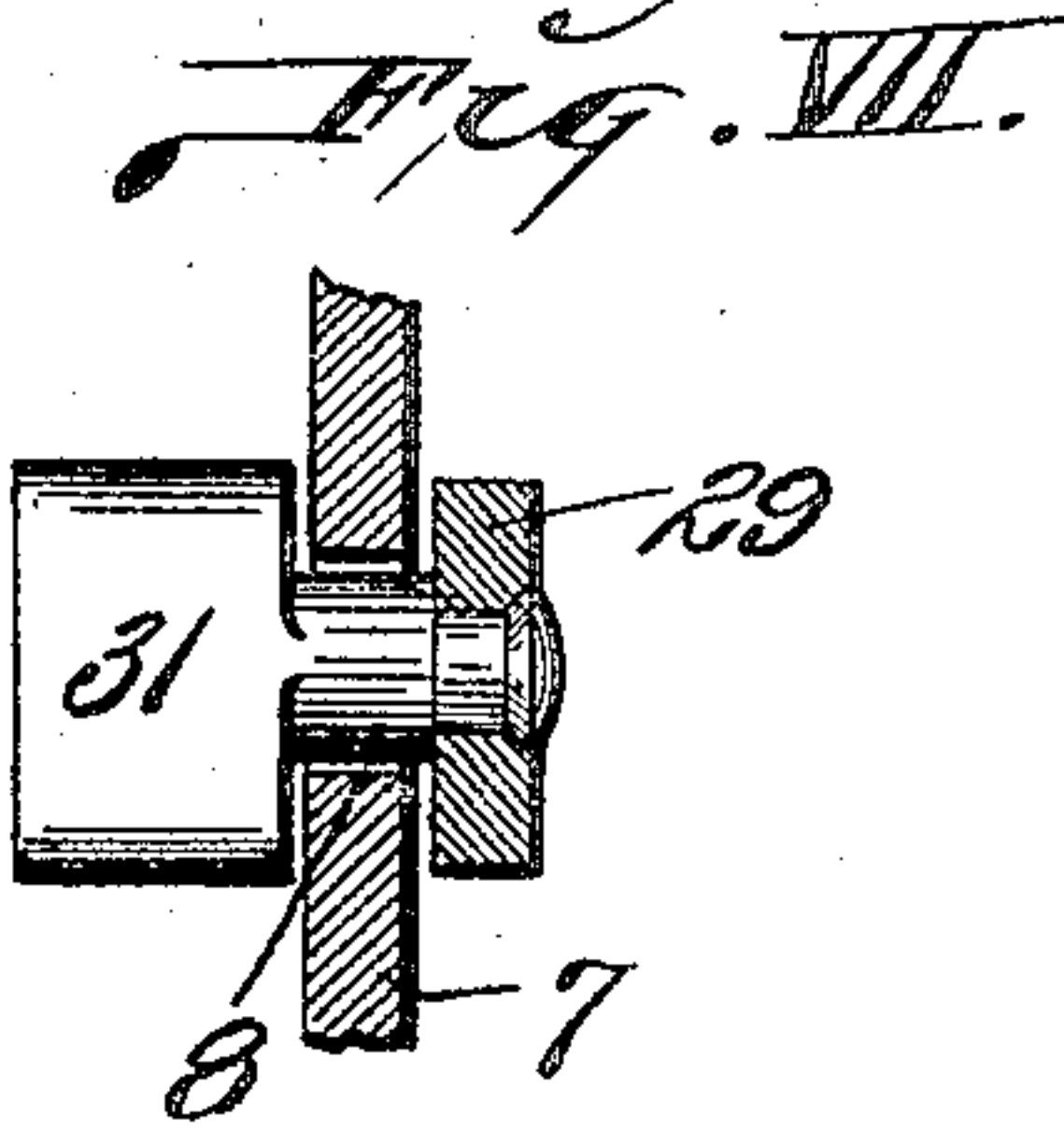
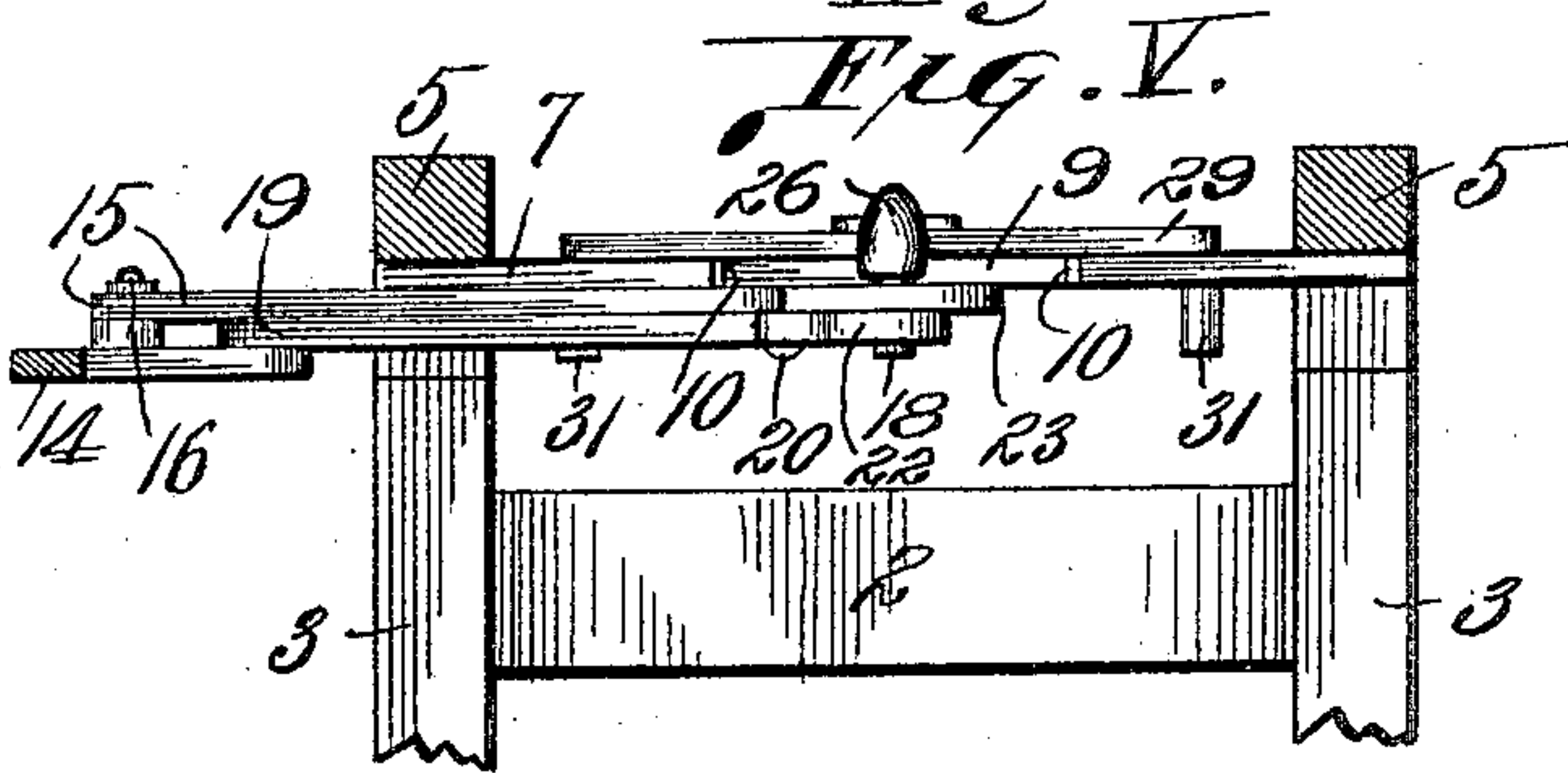
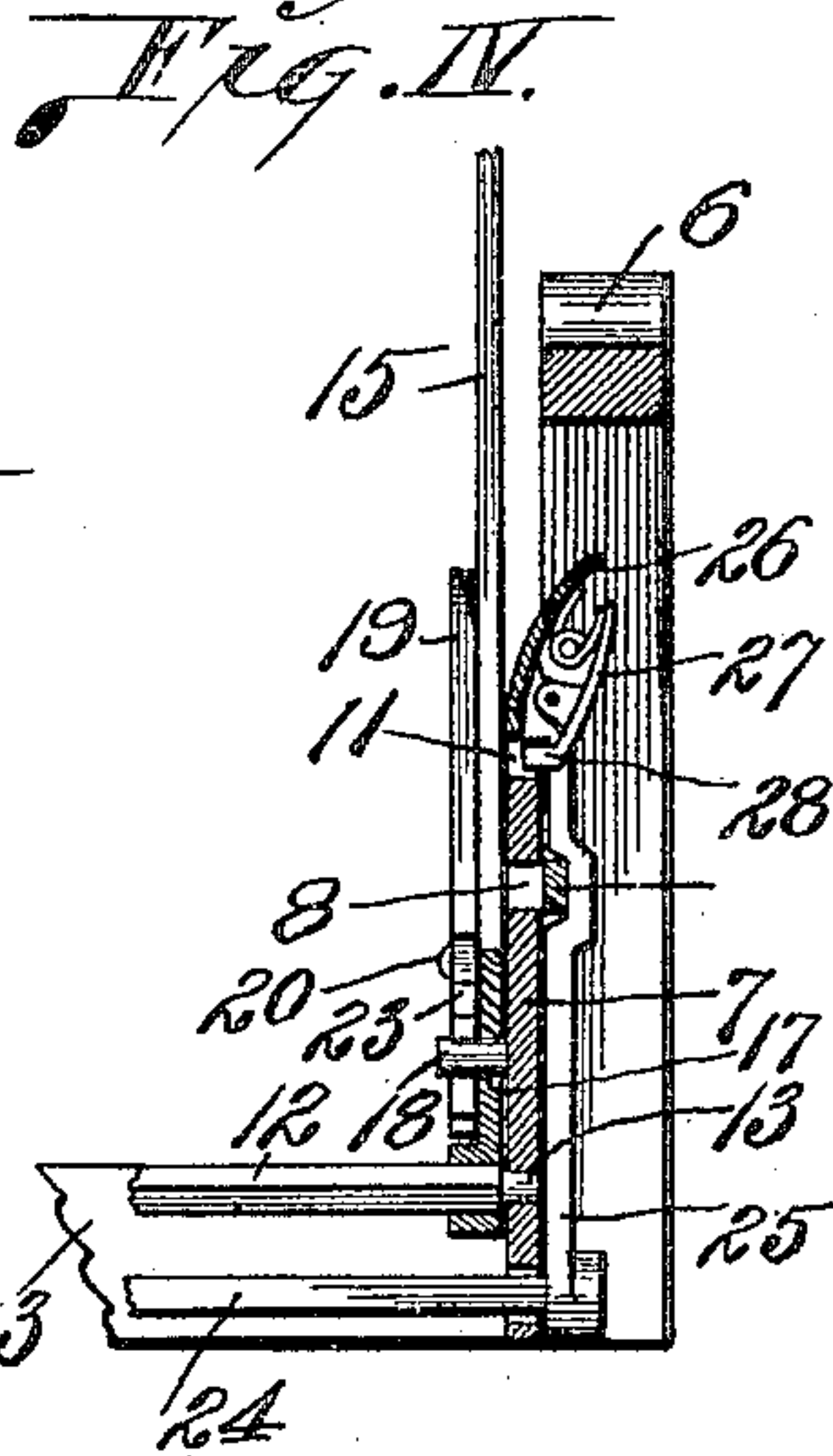
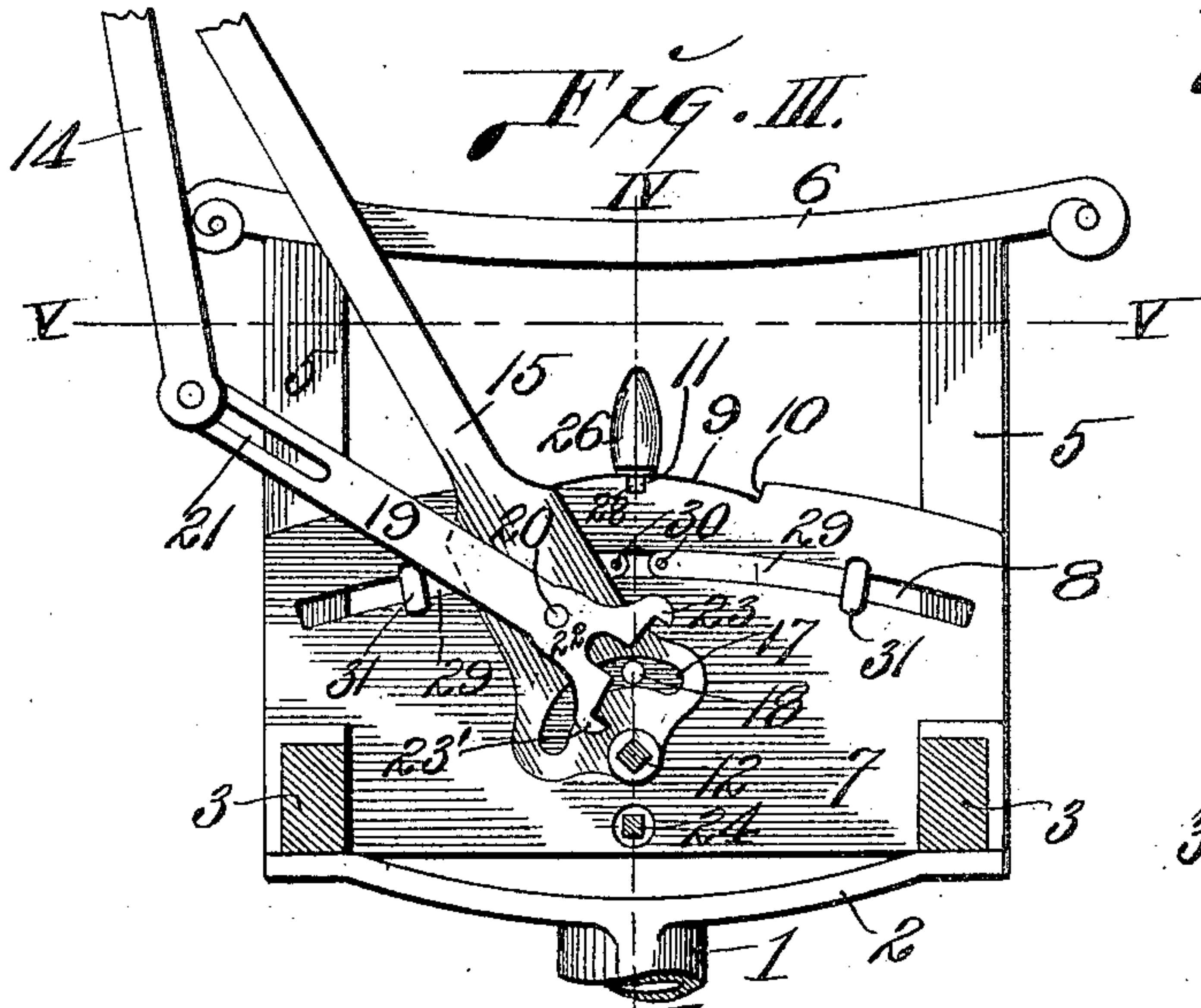
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2 SHEETS—SHEET 2.



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UNITED STATES PATENT OFFICE.

HUBERT WITTE, OF ST. LOUIS, MISSOURI, ASSIGNOR TO ST. LOUIS CAR COMPANY, OF ST. LOUIS, MISSOURI, A CORPORATION.

CAR-SEAT.

No. 822,643.

Specification of Letters Patent.

Patented June 5, 1906.

Application filed July 7, 1905. Serial No. 268,651.

To all whom it may concern:

Be it known that I, HUBERT WITTE, a citizen of the United States, residing in the city of St. Louis, in the State of Missouri, 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 part of this specification.

My invention relates to a railway-car seat; and, briefly stated, it consists of a seat-back-supporting means and means whereby said back may be upheld for service while the occupant of the seat is sitting in an erect position and which is susceptible of being adjusted to permit of the back being reclined, so that the seat occupant may assume a reclining position.

Figure I is an end elevation of my seat. Fig. II is a front elevation of one end of the seat. Fig. III is a vertical cross-section taken on line III III, Fig. II, with parts adjacent to said line shown in elevation. Fig. IV is a vertical longitudinal section taken on line IV IV, Fig. III. Fig. V is a horizontal section taken on line V V, Fig. III. Fig. VI is a view similar to Fig. III, showing the seat-back in reclined position. Fig. VII is an enlarged cross-section taken on line VII VII, Fig. VI.

1 designates one of the legs of my seat, there being a like member at the opposite end. The legs are provided with arms 2, as will appear by reference to the drawings. But one end of my seat is illustrated, and it will be understood that the parts at the other end are duplicates of the parts shown.

3 designates the longitudinal rails of the seat, which serve as supports for the cushion 4.

5 represents uprights secured to the rails 3 and which support the arm-rest 6.

7 designates the seat end that is secured to the rails 3. In the seat end is a slot 8, that extends longitudinally of said end and receives members to be hereinafter mentioned. The top of the seat end is cut away, as seen at 9, to provide shoulders 10, and at the central portion of the cut-away part of the seat end is a notch 11.

12 designates a rock-shaft having its ends

journalled in the seat ends 7, as seen at 13, Fig. IV.

14 is the back of the seat.

15 is a back-supporting arm pivoted at 16 to the seat-back intermediate of its upper and lower ends, thereby permitting movement of said back relative to said supporting-arm. The supporting-arm is enlarged at its lower end and contains a curved slot 17, which receives a pin or stud 18, projecting from the inner face of the seat end 7. The stud or pin 18 serves to restrict the movement of the back-supporting arm when it is moved from side to side of the seat to carry the seat-back from one side of the seat to its other side.

19 designates a restraining-link that serves to hold the lower end of the swinging seat-back. This restraining-link is pivoted at 20 to the back-supporting arm, and it is provided at its outer end with a longitudinal slot 21 to furnish slot-and-pin connection between the link and seat-back. In the inner end of the restraining-link is a notch 22 of sufficient dimensions to receive the stud 18, projecting from the seat end 7. The restraining-link terminates in catch-arms 23 and 23', which are adapted to engage the stud 18.

24 designates a rock-shaft that passes freely through the seat end and also extends to and through the end at the opposite end of the seat. This rock-shaft 24 has fixed to it a hand-lever 25, located adjacent to the seat end 7 and provided at its upper end with a handle 26, which projects over the seat end and is arranged to move in the cut-away portion 9, so that when the lever is moved to and fro longitudinally of the seat end its movement will be restricted by said handle coming into engagement with the shoulders 10. The handle of the lever 25 carries a spring-controlled catch 27, which is pivoted thereto and is provided with a tooth 28, adapted to enter the notch 11 in the seat end to hold the lever in a central position relative to the degree of its movement.

29 designates a pair of arms pivoted at 30 to the hand-lever 25, adjacent to the slot 8 in the seat end.

31 represents stop-knobs that are secured to the arms 29 and which project through the

slot 8 in the seat end to the inside face of said seat end, where they are in positions to be engaged by the restraining-links 19. These stop-knobs are preferably rigidly attached to the arms 29, and they have shanks which operate in the slot 8, as seen in Fig. VII. The stop-knobs 31 provide in connection with the hand-lever 25 and a spring-controlled catch 27, adapted to engage one of the seat-ends, means for restraining the movement of the back-supporting arms of the seat and a back carried thereby.

The operation of my car-seat is as follows: As the parts are seen in Fig. I, the seat-back is in position for service while the occupant is in an erect position, and when the back is so located the back-supporting arms 15 occupy approximately the position seen in Fig. III, and the catch-arms 23' of the restraining-links 19 are out of engagement with the seat-end studs 18. At this time the seat-back is held from movement, due to the end levers 25 being held by the catches 27, seated in the seat-end notches 11, and the restraining-links being supported by the knobs 31. When the seat-back is to be swung to the opposite side of the seat, said back is moved bodily forward until the back and the restraining-links 19 are brought into alignment with the back-supporting arms 15, during which movement the central portions of the restraining-links are moved toward the seat-end studs 18. The rear side of the notch 22 in each restraining-link is thus brought into engagement with the seat-end studs, and said studs are caused to enter into the notches 22, with the result that the engaging portions of the restraining-links by bearing against the seat-end studs causes the restraining-links to be thrown into positions the reverse of that in which they are shown in Fig. III. The movement of the back is then continued until the back has been placed in the desired position at the opposite side of the seat.

When it is desired to lower the seat-back into a reclined position, the handles 26 of the hand-levers 25 are grasped and the catches 27 of said handles are manipulated to withdraw their teeth from the notches 11 in the seat ends and permit rocking movement of the hand-levers. The levers are then permitted to move in a direction toward the seat-back, and the arms 29, pivoted to said levers, move with them, with the result that the stop-knobs 31 are shifted from the position seen in Fig. III to that seen in Fig. VI, this change of position of the stop-knobs providing for those at the rear of the restraining-links 19 being carried to the rear ends of the slots 8 in the seat ends, so that the restraining-links and the back-supporting arms are allowed to move into a reclined position, and when they

are so moved the catch-arms 23 come into engagement with the studs 18 to restrict the movement of said links.

I claim as my invention—

1. In a car-seat, the combination of seat ends and a back, swinging back-supporting arms supported by said seat ends, restraining-links connected to said back and pivoted to said arms, a rocking lever, restraining means carried by said lever arranged for engagement with one of said seat ends; said restraining means including stops carried by said rocking lever adapted to receive the engagement of said restraining-links, substantially as set forth.

2. In a car-seat, the combination of seat ends and a back, swinging back-supporting arms supported by said seat ends, restraining-links pivoted to said arms and having connection with said back, a hand-lever, restraining means carried by said lever arranged for engagement with one of said seat ends; said restraining means including arms provided with stops and connected to said hand-lever; said stops being arranged to be engaged by said restraining-links, substantially as set forth.

3. In a car-seat, the combination of seat ends, and a back, a rock-shaft loosely mounted in said seat ends, swinging back-supporting arms fixed to said rock-shaft and having connection with said seat-back, a second rock-shaft, a hand-lever fixed to said second rock-shaft and arranged for engagement with one of said seat ends, stops carried by said lever adapted to restrict the movement of said back-supporting arms and restraining-links pivoted to said back-supporting arms and having loose connection with said seat-back, substantially as set forth.

4. In a car-seat, the combination of notched seat ends and a back, swinging back-supporting arms supported by said seat ends, restraining-links pivoted to said arms and having loose connection with said back, hand-levers rockingly supported by said seat ends, catches carried by said hand-levers and arranged to enter the notches in said seat ends, and arms connected to said hand-levers and provided with stops arranged to be engaged by said restraining-links, substantially as set forth.

5. In a car-seat, the combination of slotted seat ends and a back, back-supporting arms swingingly supported by said seat ends, restraining-links pivoted to said arms and connected to said back, hand-levers arranged to engage said seat ends, arms pivoted to said hand-levers and provided with stop-knobs operating through the slots in said seat ends and projecting into the path of movement of said restraining-links, substantially as set forth.

6. In a car-seat, the combination of seat
ends provided with studs and a seat-back,
back-supporting arms swingingly supported
by said seat ends and provided with slots to
5 receive said studs, back-restraining links piv-
oted to said arms and connecting the back
thereto, the said restraining-links being pro-
vided with catch-teeth adapted to engage
said studs, and means for limiting the move-
10 ment of said restraining-links, substantially
as set forth.

7. In a car-seat, the combination of seat
ends provided with studs and a seat-back,

back-supporting arms swingingly supported
by said seat ends and provided with slots to 15
receive said studs, back-restraining links piv-
oted to said arms and connecting the back
thereto, the said restraining-links being pro-
vided with catch-teeth and a notch interme-
diate of said teeth adapted to receive said 20
studs, substantially as set forth.

HUBERT WITTE.

In presence of—

ARTHUR DIEKMANN,
HELEN J. MURPHY.