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Patented Nov. 25, 1902.

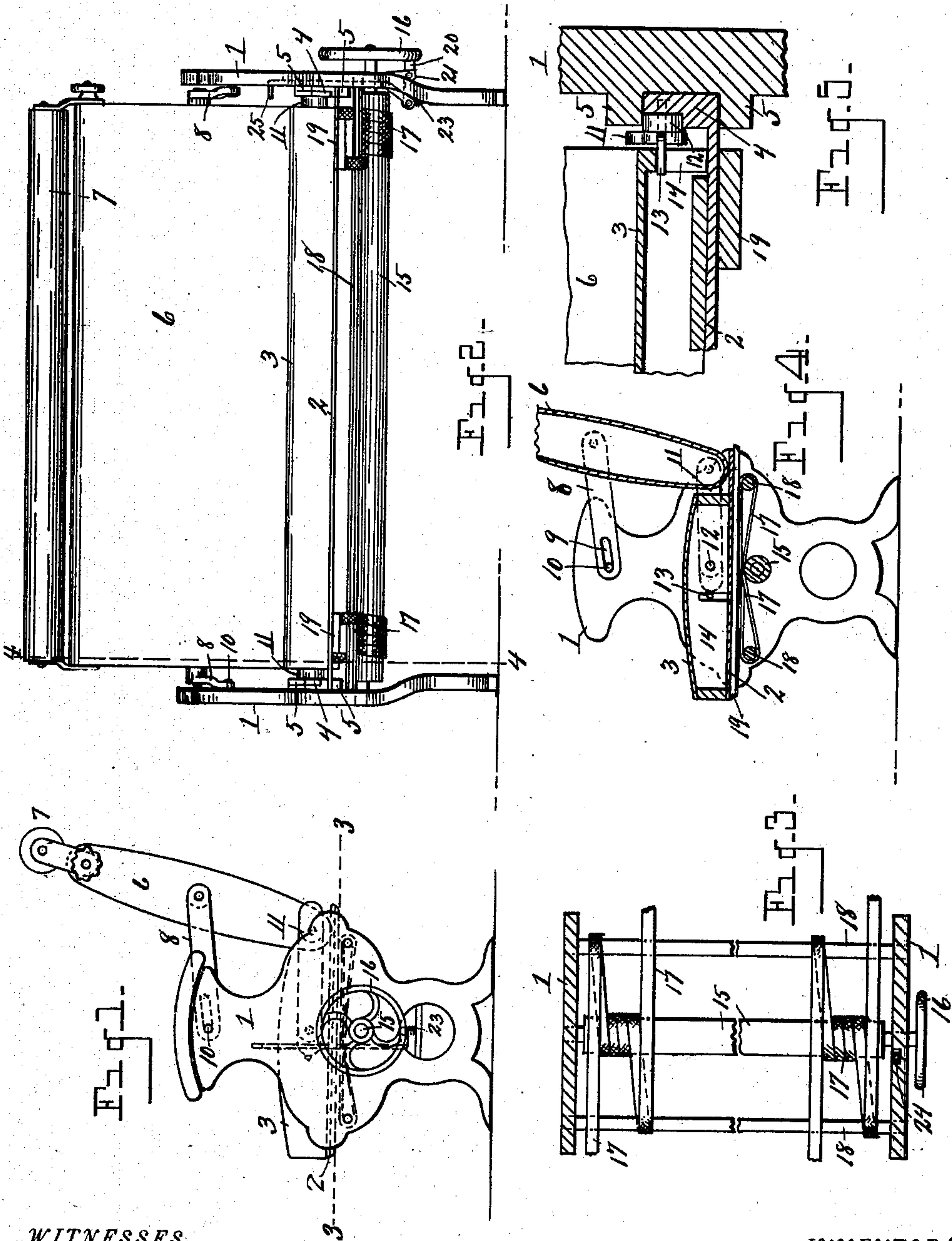
D. M. HAVERLY & E. G. SOLOMON.

ADJUSTABLE SEAT.

(Application filed June 29, 1901.)

(No Model.)

2 Sheets—Sheet 1.



WITNESSES.

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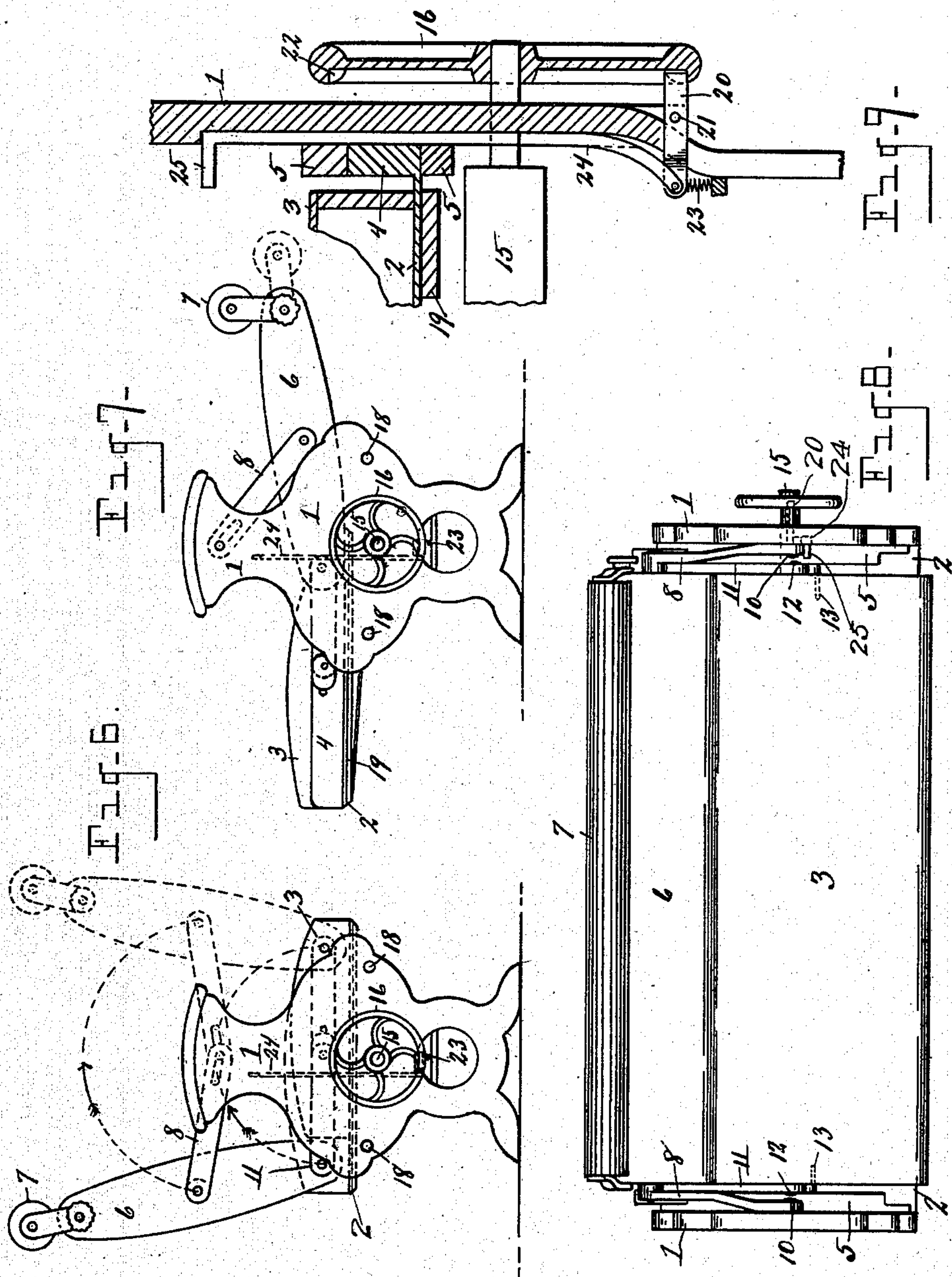
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UNITED STATES PATENT OFFICE.

DAVID M. HAVERLY AND EMMET G. SOLOMON, OF OMAHA, NEBRASKA.

ADJUSTABLE SEAT.

SPECIFICATION forming part of Letters Patent No. 714,370, dated November 25, 1902.

Application filed June 29, 1901. Serial No. 66,503. (No model.)

To all whom it may concern:

Be it known that we, DAVID M. HAVERLY and EMMET G. SOLOMON, citizens of the United States, residing at Omaha, in the county of Douglas, State of Nebraska, have invented certain new and useful Improvements in Adjustable Seats; and we do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

This invention relates to an adjustable seat, more especially designed for a car-seat; and it consists in the construction and arrangement of parts hereinafter more fully set forth, and pointed out particularly in the claims.

The objects of the invention are to provide means whereby a seat of the character described may be rendered reversible, so that the back may be swung from side to side and the seat and back portion extended and supported, so as to enable the occupant to recline or occupy a recumbent position, and a further arrangement whereby the seat may be readily changed from its various positions and securely locked in any position desired.

The above objects are attained by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is an end elevation of our improved seat. Fig. 2 is a front elevation thereof. Fig. 3 is a horizontal section as on line 3-3 of Fig. 1. Fig. 4 is a transverse section through the seat portion and back. Fig. 5 is an enlarged detail in section through the end of the seat and a portion of the supporting-frame, showing the slide which carries the seat and the lever pivoted thereto. Fig. 6 is an end elevation of the seat, showing the back in a position opposite to that in Fig. 1 and by dotted lines the movement of said back. Fig. 7 is an end elevation showing the seat extended and the back let down, so as to form a bed for reclining. Fig. 8 is a plan view of the seat. Fig. 9 is an enlarged detail in section showing means for locking the seat when adjusted to any desired position.

Referring to the characters of reference, 1 designates the end pieces of the seat, which

may be of any suitable construction and which are secured in position in any desired manner. Extending longitudinally between the inner faces of the end pieces of the seat is a platform 2, upon which the seat proper, 3, is supported. Attached to the opposite ends of the platform 2 are the slides 4, adapted to travel in a way formed between the guides 5, attached to the inner face of the end pieces 1. The back 6 extends longitudinally between the ends and is provided with an adjustable head-roll 7. Pivoted to the opposite ends of the back near the center thereof are the arms 8, whose inner ends are provided with the slots 9, adapted to receive the pins 10, projecting inwardly from the faces of the end pieces 1. Pivoted to the ends of the back at the bottom edge thereof are the arms or links 11, whose opposite ends are pivoted at 12 to the slides 4, mounted in the end pieces of the seat and in vertical alinement with the pins 10. The inner ends of the links 11 extend somewhat beyond the point of pivot 12 and carry the inwardly-extending pins 13, adapted to lie in the slots 14 in the ends of the seat 3.

By attaching the back to the end pieces through the pivoted arms and links, as described, provision is made for allowing the back to be reversed from side to side of the seat, as clearly shown in Fig. 6. On referring to Fig. 4 it will be seen that the platform 2 is of greater width than the seat proper, 3, and that the lower edge of the back rests upon the ledge of said platform when in the position shown in said Fig. 4. When reversing the back to the opposite side, it is necessary to shift the seat in the opposite direction, so that the back may rest upon the ledge of the platform 2 in its reversed position. This adjustment of the seat proper is accomplished through the pins 13, which project from the inner ends of the links 11, whereby said pins are caused to travel in the arc of a circle as the back is reversed to move the seat in the opposite direction such distance as to enable the back to rest upon the ledge of the platform behind said seat, at the same time projecting the opposite edge of the seat sufficiently forward to extend it into vertical alinement with the outer edge of the platform 2.

Crossing between the end pieces of the seat and journaled therein is a shaft 15, carrying upon one projecting end thereof a hand-wheel 16, through the medium of which said shaft may be rotated. This hand-wheel 16 is not necessary, and while convenient may be eliminated, if desired. Wound upon said shaft at the opposite ends thereof are the belts 17, whose opposite ends extend in opposite directions around the counter-shafts 18, journaled in the end pieces on opposite sides of the central shaft 15, the ends of said belt being attached to the opposite ends of the cleats 19, secured to the bottom of the platform 2, whereby by rotating the shaft 15 said belts pay off from one side of said shaft and wind onto the opposite side thereof, thereby moving the platform 2 and causing its slides to travel in the ways in the end pieces of the frame. These ways so support the slides of the platform as to enable said platform to be extended by the rotation of the shaft 15 to project the seat horizontally from the end pieces and cause the back, which is pivoted to said seat, to assume an inclined or horizontal position, as shown in Fig. 7, allowing a perfectly flat bed to be made of the seat, or enabling the seat to be extended and the back to be inclined to any desired degree to suit the pleasure and comfort of the occupant. To restore the seat and back to their normal positions, the shaft 15, through the medium of the hand-wheel, is rotated in the opposite direction, as will be well understood. It will be observed that the arrangement is such as to enable the seat to be extended from either side, as desired. Instead of using a strap or chain, as shown, for operating the seat to extend it, a train of gears may be employed to connect the shaft with the sliding platform upon which the seat is mounted.

To provide for locking the parts of the seat in any desired position, a detent 20 is employed, pivoted at 21 and projecting through the end piece into the path of the rotary hand-wheel 16, whose inner edge is provided with a series of notches 22, in which said detent is adapted to engage to lock said wheel. The inner end of the detent is supported by a spring 23, which normally holds the locked end thereof in contact with the hand-wheel 16. For the purpose of disengaging the detent a vertically-movable rod 24 is pivoted to the inner

end thereof, which passes upwardly in a way in the end piece and is provided with a projection 25, upon which the operator may press to force said rod downwardly and raise the outer end of the detent from the notches in the hand-wheel, when said wheel will be free to rotate in either direction.

Having thus fully set forth our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. In a reversible seat, the combination of a suitable frame, a platform in said frame, a seat adapted to slide horizontally upon said platform, a back, means connecting said back to the frame to allow the back to swing from side to side, means connecting said back to the seat whereby the seat is moved horizontally as the back is swung from side to side, a rotary shaft in the frame, belts adapted to wind upon said shaft and having their ends connected to the movable seat.

2. In a reversible seat, the combination of a suitable frame, a movable back, a seat mounted to slide horizontally in said frame, means connected with said seat for sliding it horizontally in both directions independently of the reversible movement of the back, said back being jointedly connected with the frame and with the seat.

3. In an adjustable seat, the combination of a suitable frame, a seat mounted to slide horizontally in said frame, a back jointedly connected to the frame and to the seat, means for extending the seat horizontally and drawing the back into alinement therewith to form a bed or couch and means for restoring said parts to the normal position.

4. In an adjustable seat, the combination of a suitable frame, a shaft journaled in said frame, a seat mounted in the frame to slide horizontally, means connecting said shaft with said seat whereby a rotation of the shaft will cause said seat to slide, a back portion jointedly connected to the seat and the frame, means for rotating said shaft and means for locking said shaft against rotation.

In testimony whereof we sign this specification in the presence of two witnesses.

DAVID M. HAVERLY.
EMMET G. SOLOMON.

Witnesses:

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