

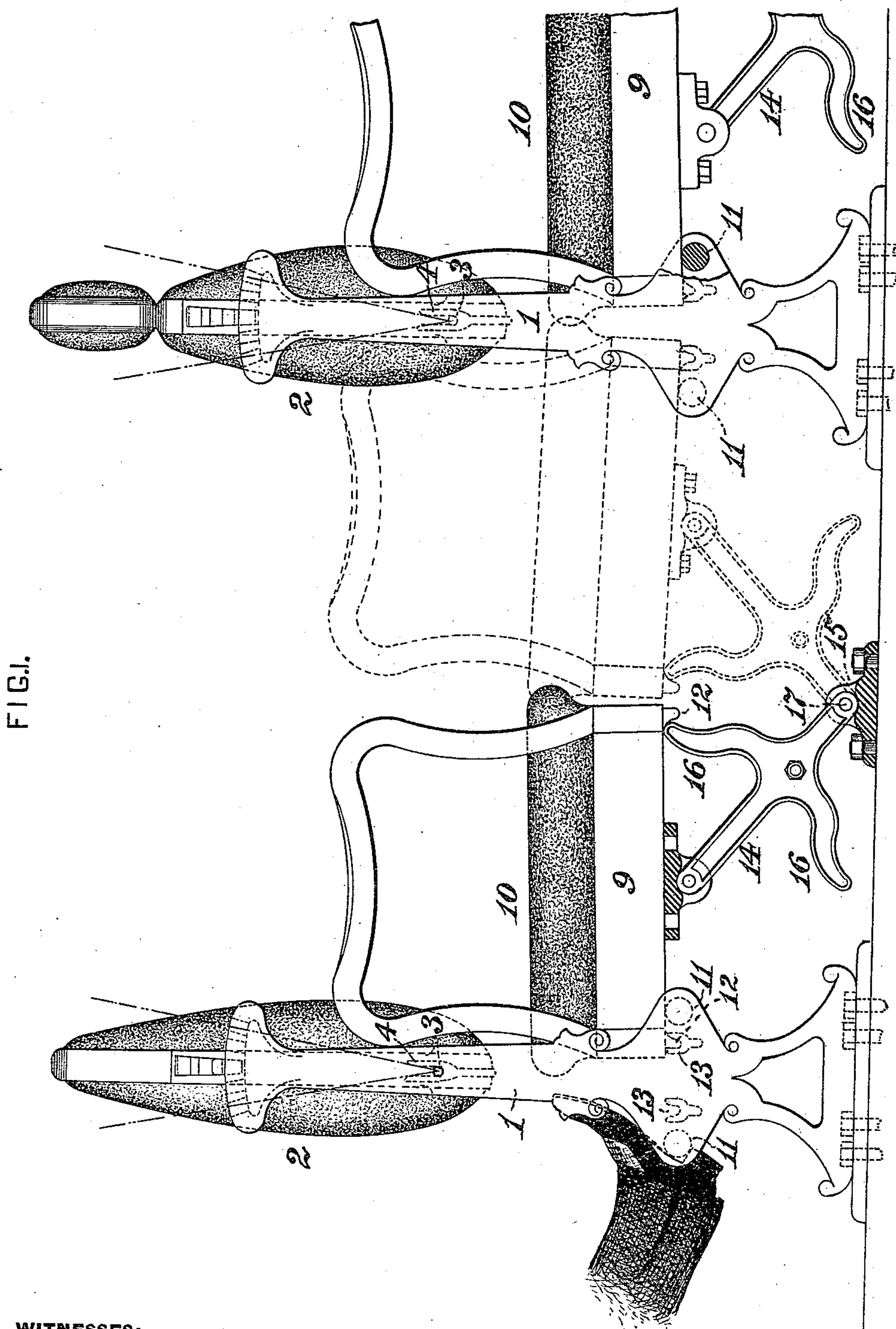
(No Model.)

3 Sheets—Sheet 1.

G. W. CUSHING.
CAR SEAT.

No. 430,071.

Patented June 10, 1890.



WITNESSES:

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F. E. Gaither

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(No Model.)

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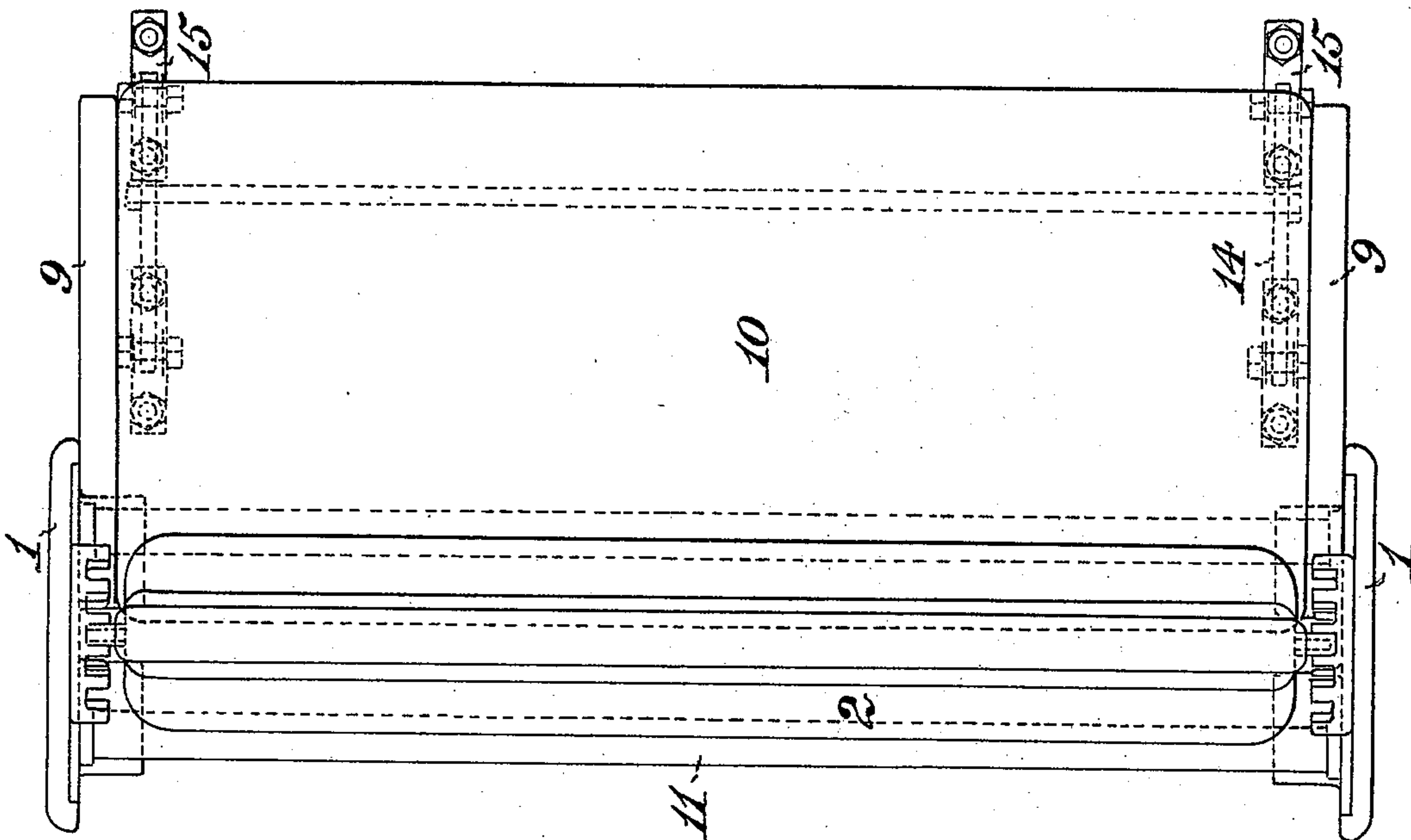
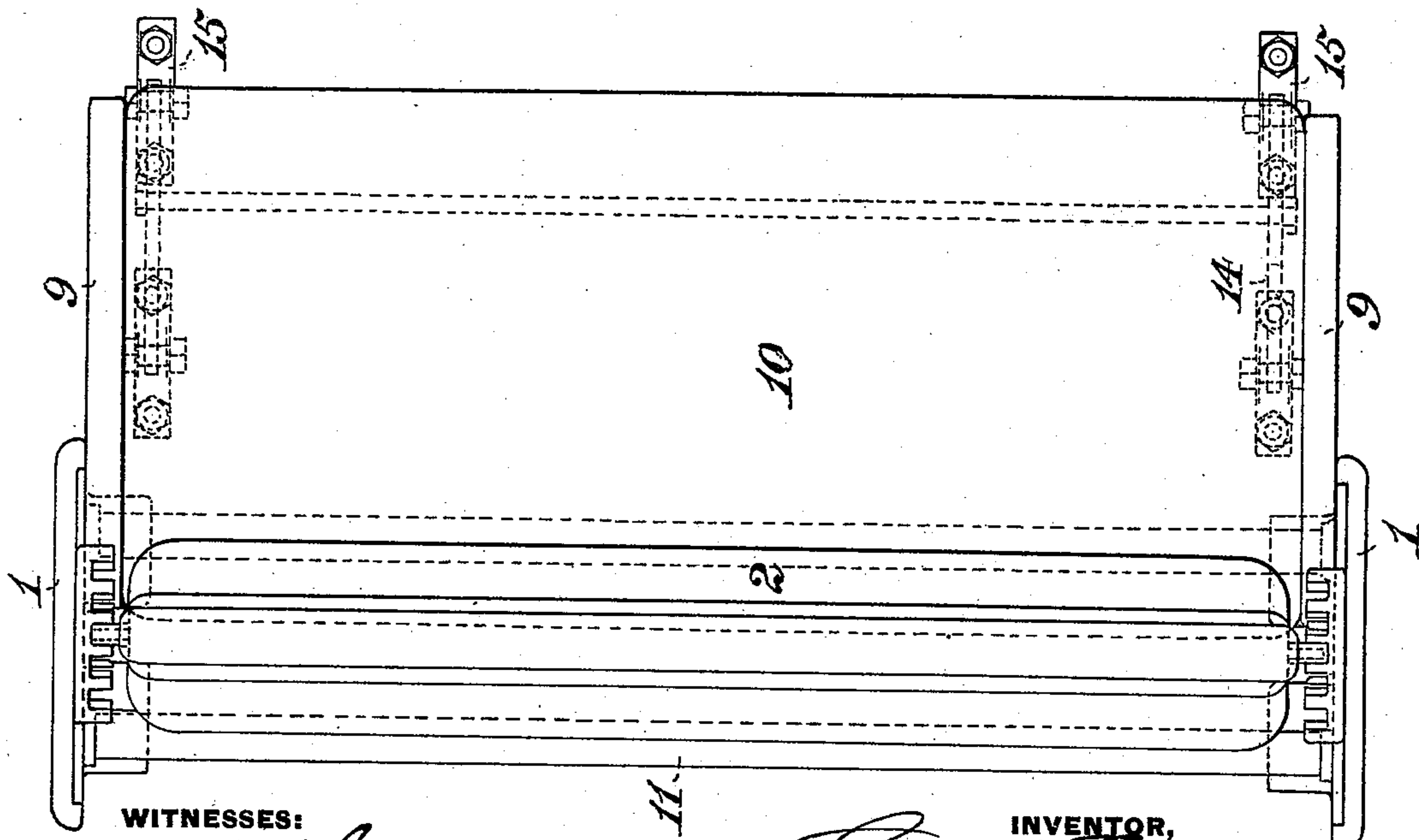


FIG. 2.



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FIG. 3.

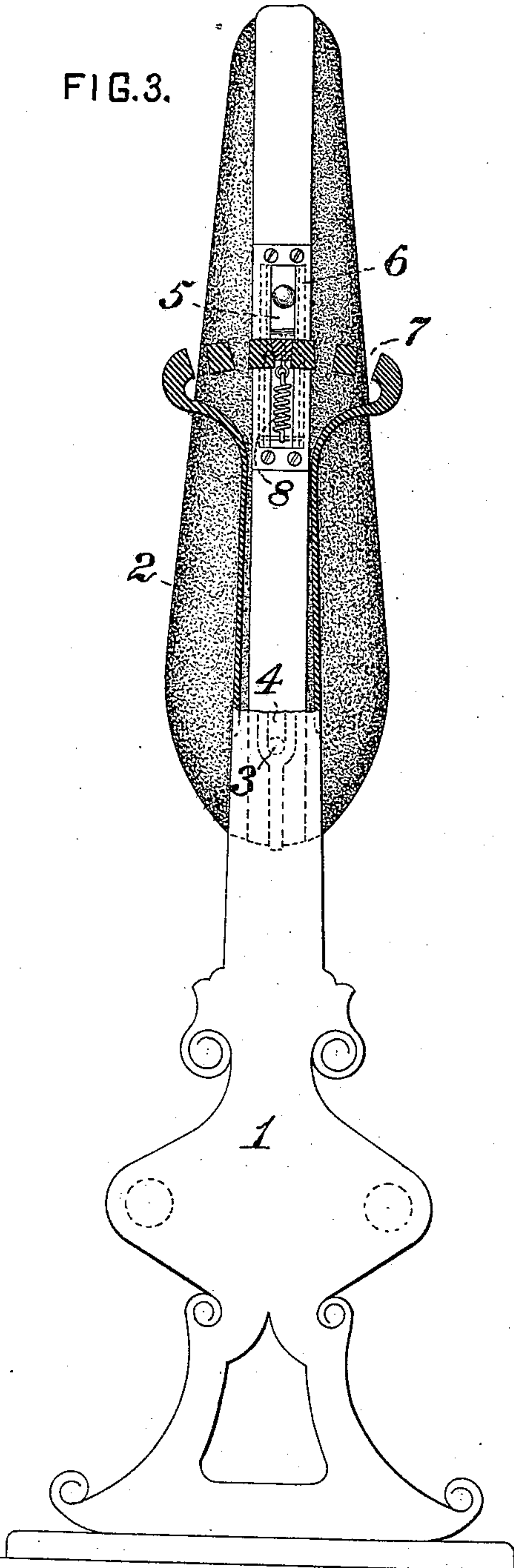
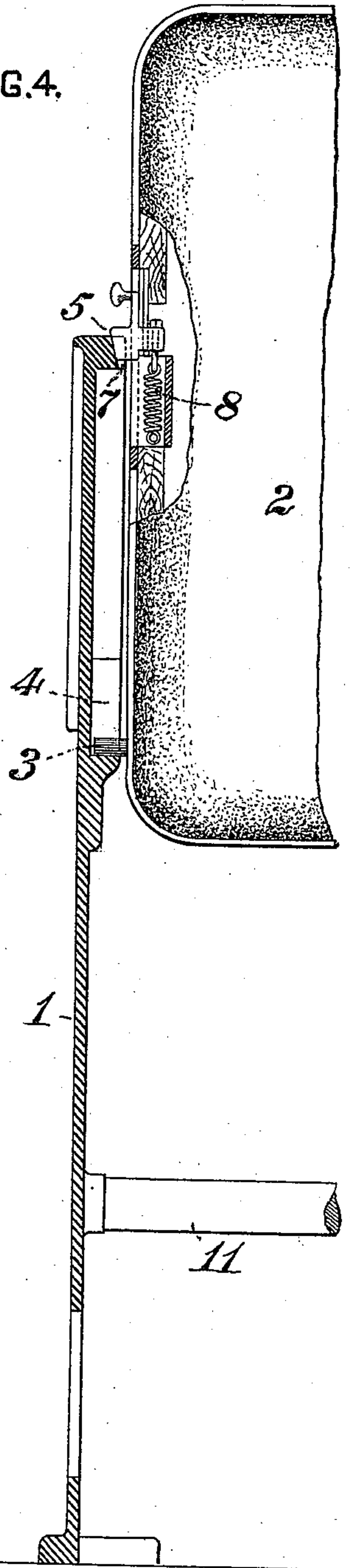


FIG. 4.



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UNITED STATES PATENT OFFICE.

GEORGE W. CUSHING, OF OMAHA, NEBRASKA.

CAR-SEAT.

SPECIFICATION forming part of Letters Patent No. 430,071, dated June 10, 1890.

Application filed January 15, 1890. Serial No. 337,000. (No model.)

To all whom it may concern:

Be it known that I, GEORGE W. CUSHING, of Omaha, in the county of Douglas and State of Nebraska, have invented a certain new and useful Improvement in Car-Seats, of which improvement the following is a specification.

The object of my invention is to provide a reversible car-seat—that is to say, one in which the occupants are enabled to face either end of the car, as desired—which shall be of simple and inexpensive construction and suitably adapted to use in passenger-cars of the standard type, and in which the seat-back may be made of any desired height, so as to either serve as or be fitted with a head-rest. In addition to such structural advantages my invention is designed to obviate the inconvenience and objections experienced in the use of the ordinary reversible-back seats, which result from the turning of the backs of two adjacent seats in opposite directions, so that the seats face each other, among which are discomfort to passengers and opportunity for intrusion upon their privacy by ill-bred persons, the appropriation of more than the legitimate amount of space by passengers, injury to cushions by passengers putting their feet upon them, and the frequent practice of turning the cushions lengthwise of the car and using them as beds. To these ends my invention, generally stated, consists in the combination of seat ends, a seat-back substantially fixed thereon, and a seat pivoted to swinging carriers and movable therewith toward and from the seat ends, so as to be adapted to rest either on a support fixed thereto or on a support fixed to the seat ends of the adjacent seat, according as the occupant desires to face in one or the other direction. The improvement claimed is herein-after fully set forth.

In the accompanying drawings, Figure 1 is an end view of a car-seat and the major part of an adjacent car-seat embodying my invention; Fig. 2, a plan or top view of two adjacent seats; Fig. 3, a part vertical longitudinal section, on an enlarged scale, through one of the seat ends, illustrating means for imparting inclination in either direction to the seat-back; and Fig. 4 a part vertical transverse

section through the same and through a portion of the adjacent end of the seat-back.

In the practice of my invention I provide a pair of vertical stands or supports 1, which are bolted to the floor of the car in corresponding position to the "seat ends" ordinarily employed, and as they perform a function analogous to that of the latter they will be, for convenience of description, similarly designated herein. A seat-back 2, which is suitably and similarly surfaced or upholstered on each of its sides, so that either may serve as a support for the back of the occupants of the seat or of the adjacent seat, respectively, is connected at its ends to and supported by the seat ends 1, and may either extend for a sufficient height to enable its top to serve as a head-rest or be provided with a separate head-rest, in the manner of the ordinary parlor-car and reclining-seats. As shown in the drawings, the seat-back is preferably so connected to the seat ends as to admit of being inclined on either side of its vertical central plane; but such capacity of inclination, while desirable in promoting the comfort of passengers, is not essential, and its adoption is a matter within the discretion of the constructor. In this instance a pivot 3 is formed upon each end of the seat-back frame, near its lower side, said pivots fitting freely in sockets 4 on the adjacent faces of the seat ends, so as to admit of the seat-back being swung therein within a limited range of inclination on either side. The seat-back is held in desired vertical or inclined position by a spring-latch 5, sliding in a vertical guide 6 on the seat-back frame and adapted to engage one or the other of a series of sockets 7 in the top of the seat end, the latch being held in position in either of the sockets by a spring 8. Under this construction the seat-back may be lifted out of its sockets 4 and removed for cleaning or repair whenever desired.

The leading and essential feature of my invention consists in the provision of a seat which is movable toward and from a non-reversible or substantially fixed seat-back and correspondingly from and toward another similar seat-back, so as to be capable of use, facing in opposite directions, respectively,

with either of said seat-backs, in lieu of the fixed seat and reversible seat-back of the ordinary construction. To this end the seat-frame 9, in which the seat-cushion 10 is fitted and which with its cushion may be collectively termed the "seat," is supported on the side nearest the seat-back by one of a pair of foot-rest rail-seat supports 11, which extend from one of the seat ends 1 to the other on opposite sides of and at equal distances from the central plane of the seat ends immediately below the bottom of the seat. The seat is held in position, with the capacity of ready removal therefrom when desired, by hooks or projections 12 on the bottom of its frame, which hooks engage sockets 13 on the seat ends adjacent to the foot-rest rails 11. The seat is pivoted at its ends in its longitudinal central plane to the upper ends of a pair of swinging links or carriers 14, the lower ends of which are in turn pivoted by pins 17 to bearings 15, bolted to the floor, and the side of the seat farthest from the seat-back is supported at each end on one of a pair of arms 16, projecting laterally in opposite directions from the carriers 14, the outer ends of each pair of arms being located at equal distances from the carrier on which they are formed, and being preferably made of such length that when the carriers stand at either limit of their traverse about the axes of their bearing-pivots 17 the outer ends of their upper arms 16 will stand at a higher level than the foot-rest rails 11, so as to impart a downward and backward inclination to the seat, which position of a seat is usually considered most conducive to the comfort of the occupant, particularly in the case of car-seats. The seat is reversed—that is to say, moved from its position relatively to the seat ends and seat-back into a corresponding position with relation to the seat ends and seat-back of the adjacent seat, so that the occupants may face in the opposite direction, as in the case of the reversal of an ordinary seat-back, by raising the hooks 12 out of the sockets 13 and swinging the seat and seat-carriers 14 upon the bearing-pivots 17 of the latter until the side of the seat farthest from the seat-back is brought above the sockets 13 and foot-rest rail 11 on the adjacent side of the seat ends of the next seat-back, when the hooks 12 on that side of the shifted seat are dropped into the sockets and the seat is located, as shown by the dotted lines in Fig. 1, in proper relation to the seat-back of the adjacent seat to enable its occupants to rest against said seat-back, and is supported in a similar manner to that before described, the side which was previously supported by a foot-rest rail being now supported by carrier-arms and that which was supported by carrier-arms being now supported by a foot-rest rail. A corresponding downward and backward inclination is also imparted to the seat in the opposite direction, as required by the change of position of the seat.

In the application of a series of my improved car-seats on either or both sides of a railroad-car an additional seat-back having its seat ends provided with a single foot-rest rail and pair of seat-hook sockets is requisite for the reversal of the last seat of each row.

It will be seen that while any one or more of a series of my improved car-seats or the entire series of seats may be moved so as to face in the opposite direction, as above described, two successive seats cannot be made to directly face each other, as is frequently done by unauthorized persons and in violation of the rule generally in force in railroad passenger service, with the ordinary reversible-back seats. The familiar and decided objections of this practice are thus completely obviated, while at the same time the passenger may at pleasure move his seat so as to face toward either end of the car, while still keeping it reversed, so far as the occupancy of his own seat is concerned, and without interfering with or intruding upon the occupants of the next seat or seats. This ability of readily changing seating direction from time to time affords much relief to passengers in making long runs and where varying scenery is passed; and a further feature of advantage is found in the provision of a head-rest by the elevation of the top of the seat-back sufficiently for this purpose or the attachment of an independent head-rest.

I claim as my invention, and desire to secure by Letters Patent—

1. The combination of two seat-backs fixed as against reversal, a seat which is movable toward and from one seat-back from and toward the other, and fixed and movable supports for the opposite sides, respectively, of the seat, substantially as set forth.

2. The combination of two seat-backs each fixed as against reversal and adapted to be inclined toward either side of its central plane, a seat which is movable toward and from one seat-back from and toward the other, and fixed and movable supports for the opposite sides, respectively, of the seat, substantially as set forth.

3. The combination of two seat-backs each fixed as against reversal, an interposed seat which is movable toward and from each of said seat-backs, a rest fixed to the supports of each of the seat-backs and adapted to sustain one side of the seat, and a movable support sustaining the opposite side of the seat, substantially as set forth.

4. The combination of two seat ends, a non-reversible seat-back supported on each of said ends, a seat-support fixed adjacent to each seat-back, a movable seat adapted to rest at one side on either of said supports, and swinging carriers coupled to the seat and to fixed pivot-bearings and supporting the opposite sides of the seat, substantially as set forth.

5. The combination of seat ends, a non-re-

versible seat-back supported thereon, a seat-support fixed adjacent to the seat-back, a seat which is movable toward and from said support, swinging carriers coupled to the seat and to fixed pivot-bearings and adapted to support either side of the seat, a second non-reversible seat-back, seat ends supporting said seat-back, and a seat-support fixed adjacent to said seat-back, substantially as set forth.

6. The combination of a pair of seat ends, a non-reversible seat-back interposed between and supported by said seat ends, a pair of foot-rest rail-seat supports fixed horizontally below and on opposite sides of the seat-back, sockets formed on the seat ends adjacent to said seat-supports, a movable seat adapted to rest at one side on one of the seat-supports, hooks or projections fixed to the bottom of the seat and adapted to engage the adjacent sockets of the seat ends, and a pair of carriers pivoted at their opposite ends to the seat and to fixed bearings, respectively, and provided with laterally-projecting arms which support the outer side of the seat at

either extremity of the pivotal traverse of the carriers, substantially as set forth.

7. The combination of two pairs of seat ends, a non-reversible seat-back interposed between and supported by each pair of said ends, a seat which is movable toward and from one seat-back from and toward the other, fixed and movable supports for the opposite sides, respectively, of the seat, and a head-rest connected to the upper portion of each seat-back, substantially as set forth. 30 35

8. The combination of a pair of seat ends, pivot-sockets on the inner sides of said seat ends, a seat-back provided with end pivots fitting said sockets, a series of latch-sockets formed in one of the seat ends radially to its pivot-socket, and a spring-latch fitted to slide on the adjacent end of the seat-back and to engage in either of the latch-sockets, substantially as set forth. 40

GEORGE W. CUSHING.

Witnesses:

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GEORGE R. BUTLIN.