

J. H. SWAN.

Car Seat.

No. 18,252.

Patented Sept. 22, 1857.

Fig. 1.

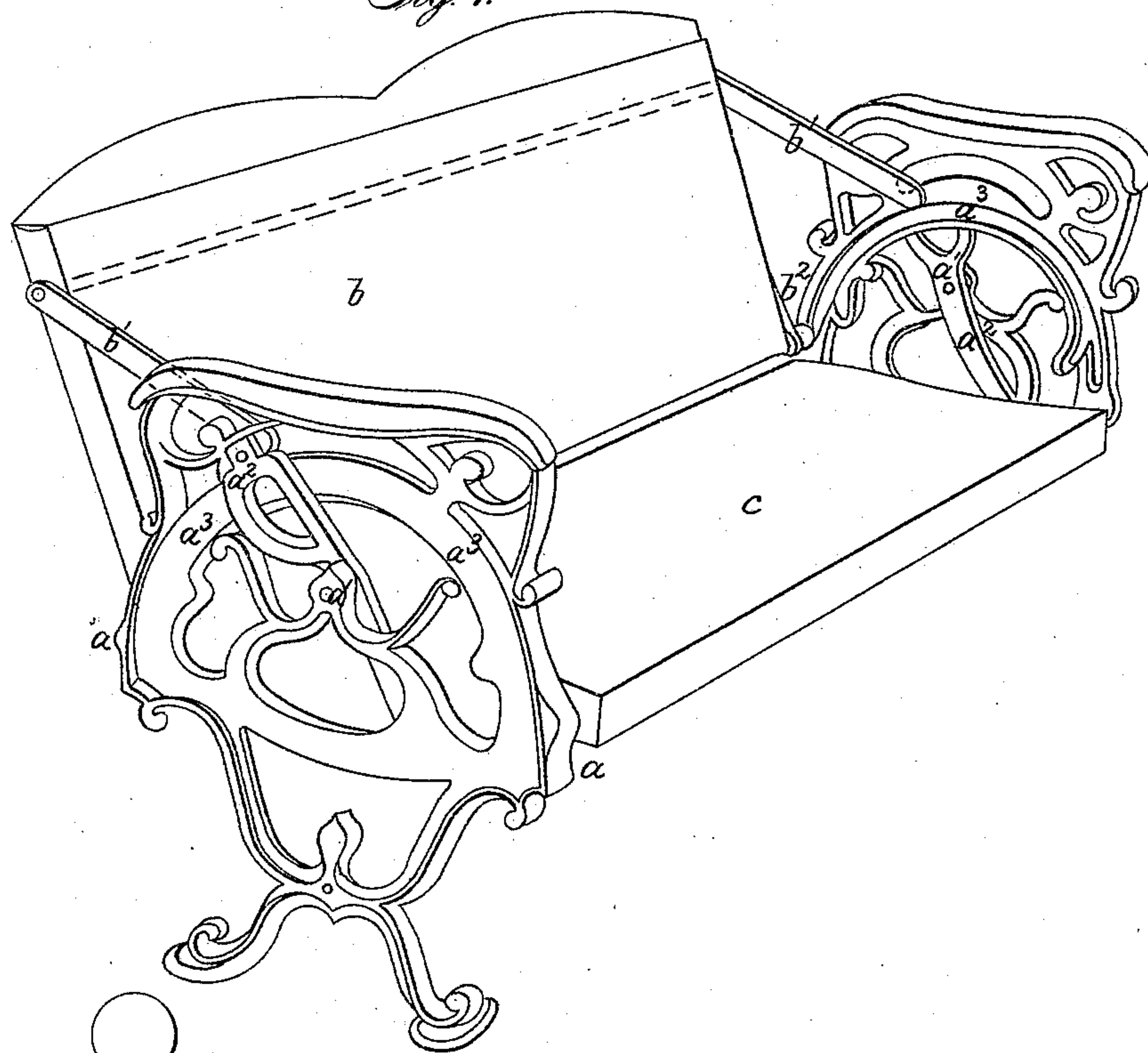
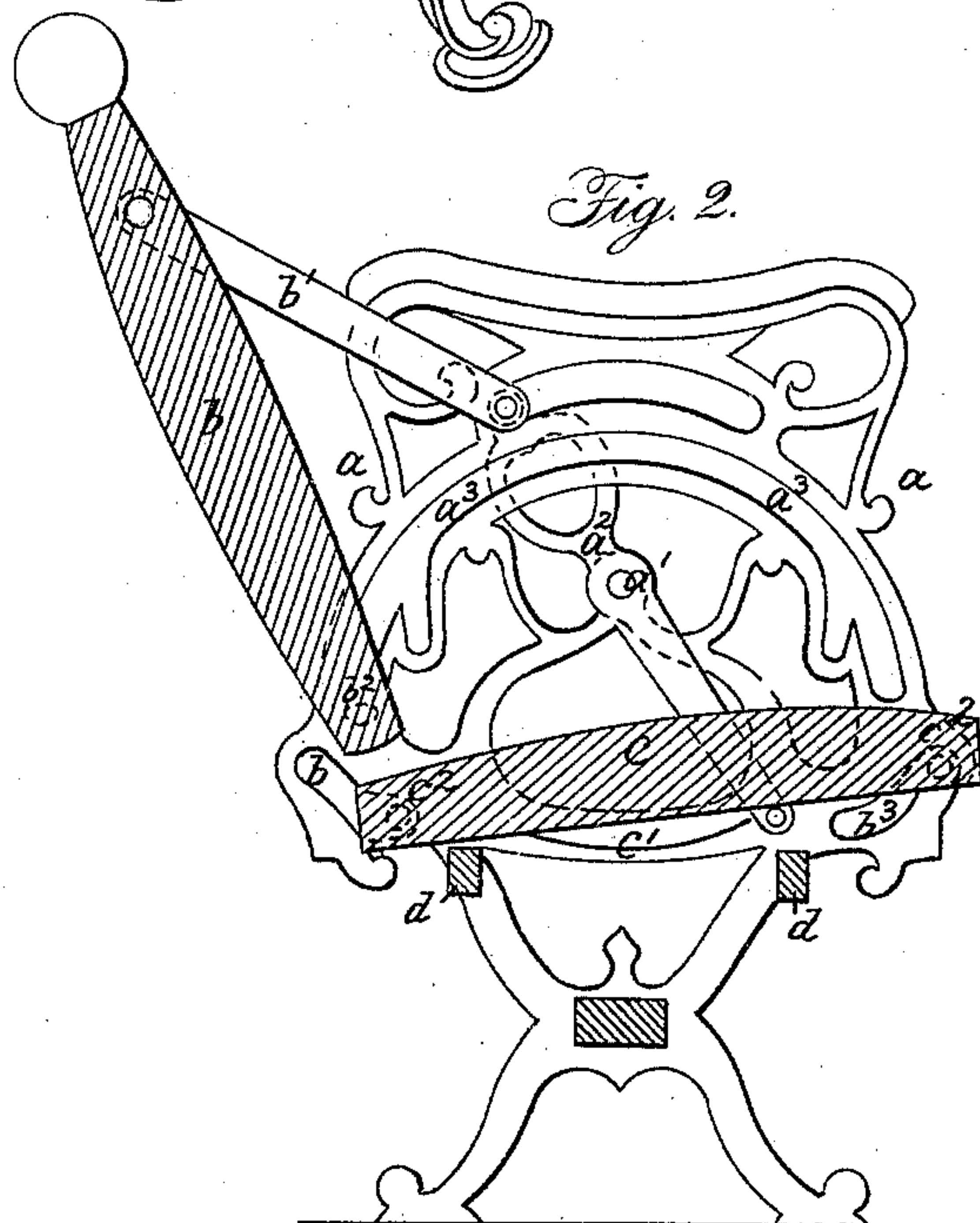


Fig. 2.



UNITED STATES PATENT OFFICE.

J. H. SWAN, OF NEW YORK, N. Y.

RAILROAD-CAR SEAT.

Specification of Letters Patent No. 18,252, dated September 22, 1857.

To all whom it may concern:

Be it known that I, J. H. SWAN, of the city, county, and State of New York, have invented certain new and useful Improvements in Seats for Railway-Cars; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawing, in which—

Figure 1 is a perspective view of the seat complete. Fig. 2 is a vertical cross section through the seat.

My improvements consist in the mode of connecting the back with the arms or side standards and with the seat so as to be made an elevated reclining seat and back for sleeping or a day seat at pleasure by simple and permanent attachments that are not liable to derangement.

The construction is as follows: I form the arms or side standards a of the same general outline as ordinary car seats of any ornamental cast iron pattern that will embrace the necessary elements of my device. At a point a' in each of the side-arms there is a pivot by which a lever a^2 is pivoted. The upper end of this lever is within the face of the outside of the arm a while the lower part is brought inside of the curved segmental groove piece a^3 to be hereafter described. To the upper end of the lever a^2 an arm b' is jointed that is affixed to an iron rod at its other end, which rod extends clear through from end to end of the back b and is there permanently affixed to the opposite arm b' . This rod (shown only by dotted lines in the drawing Fig. 1) makes with the two arms a bent crank on the wrist of which the seat-back is hung, the rod turning in the back and keeping the two arms parallel, by which all twisting is avoided. At the lower end corners of the back b are projecting pins b^2 (see Fig. 2). These fit into the groove on the inside of the segment piece a^3 above named. The groove extends from front to back of this piece, as clearly seen at Fig. 2. At some distance from the ends of this groove on the lower or concave side thereof are two notches or enlargements in which the pins b^2 can enter and rest when desired to elevate the back. The pins can readily pass clear over to the opposite end of the groove to reverse the seat while at

the same time the arms b' are swung over with the top of the back for reversing the position of the seat as will be readily noticed on an inspection of the drawing. The lower end of the lever a^2 (see Fig. 2) has a pin projecting from its inner face which projects under a curved plate at c' in an iron plate firmly affixed to the end of the car seat c (see Fig. 2). At each end of this plate a pin c^2 projects outward. These enter and work into two grooves b^3 in the standard a . These grooves are in part horizontal but curved upward at their outer end, as seen in the drawing, so that when the back is carried backward either way the forward end rises and this movement of the seat is effected by lever a^2 connected with it by the pin under plate c' .

The operation of this seat and its different parts is as follows: By placing the pins b^2 on the lower corner of the back at the ends of the grooves of the segment a^3 and bringing the seat level we have an upright back day seat with low back. To turn this into a high back it is raised until the pins b^2 enter the notches. Then if the back is thrown into a reclining position the lever a^2 swings back with it at top carrying its lower end forward which by the connection before described with the seat elevates and moves forward the seat into the proper position for reclining comfortably. If the back is swung clear over to the opposite side so as to face the other way all the relative parts and their action are exactly the same in the reversed position. The back is stuffed on both sides which come alternately on the inside as the seat is shifted as the back does not turn over. On the top of the back instead of having a sliding or turning head rest I form a soft stuffed roll, as seen in the drawing, that projects on both sides and forms a perfect head rest to the passenger in the seat or the one behind without any danger of injury to either, as is the case with most of the present fixtures with hard backs or joints on the outside. The two end standards are united by a bar d on each side which hold them together and serve in part, if desired, to sustain the seat.

Having thus fully described my improved car seat what I claim therein as my inven-

tion and for which I desire to secure Letters Patent is—

1. The combination of the reversible back and seat by means of the lever a^2 substantially in the manner and for the purposes
5 set forth.

2. I also claim the combination of the levers a^2 , arms b' and segment a^3 with their

attachments for reversing the back as above specified.

In testimony whereof I have hereunto
signed my name. 10

J. H. SWAN.

In presence of—

W. H. STANSBURY,
T. TOWN.