(No Model.) 2 Sheets—Sheet 1.

E. PYNCHON.

CAR CHAIR.

No. 516,110. Patented Mar. 6, 1894.

Fig. 1.

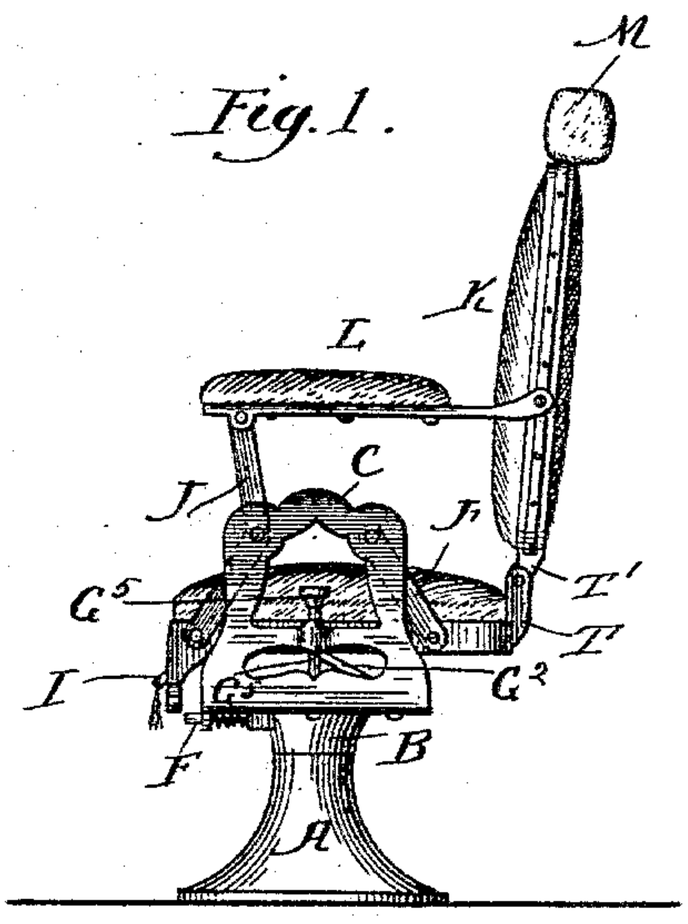
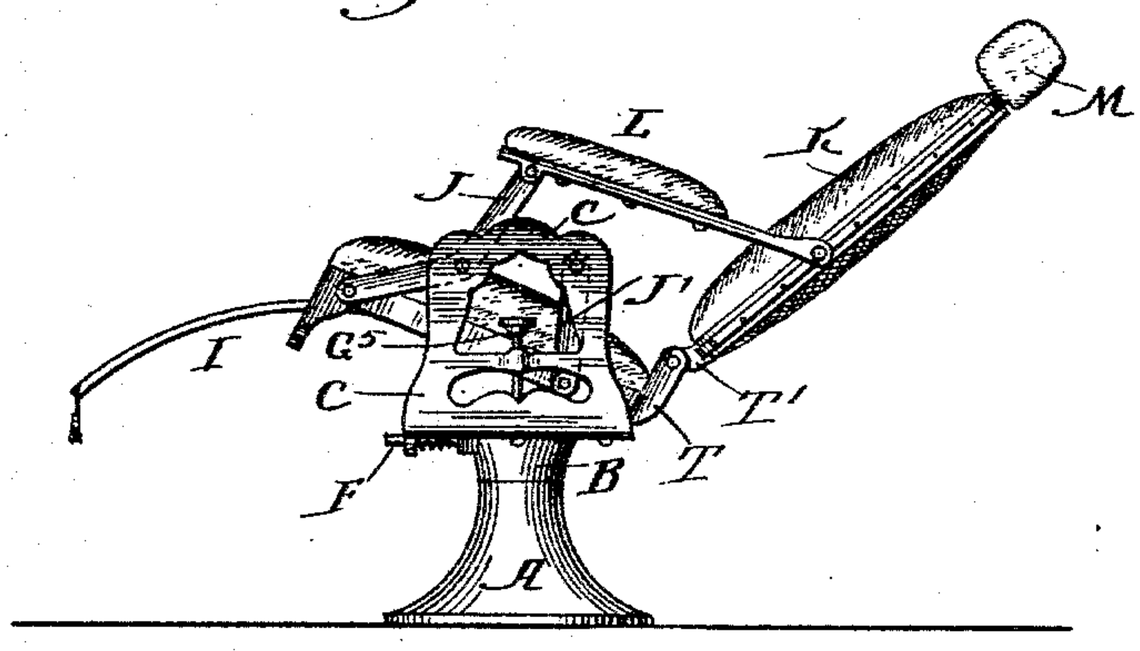


Fig. 2.



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(No Model.) 2 Sheets—Sheet 2.

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Fig. 4.

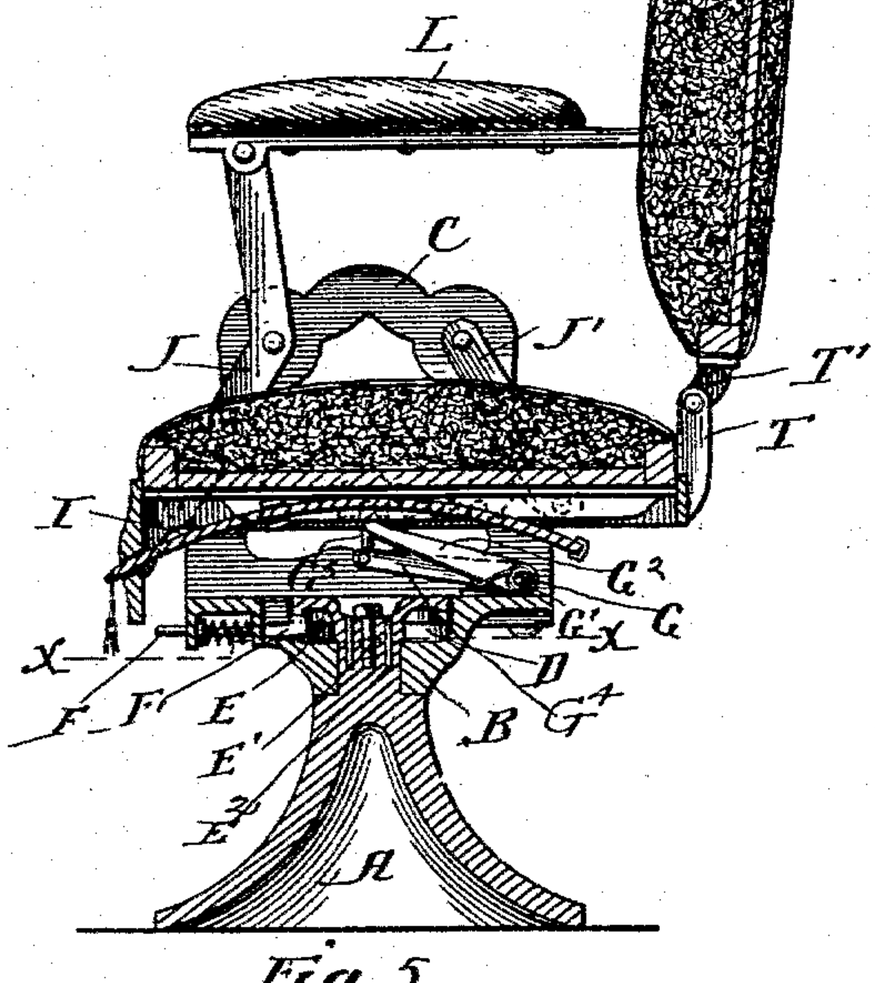


Fig. 3.

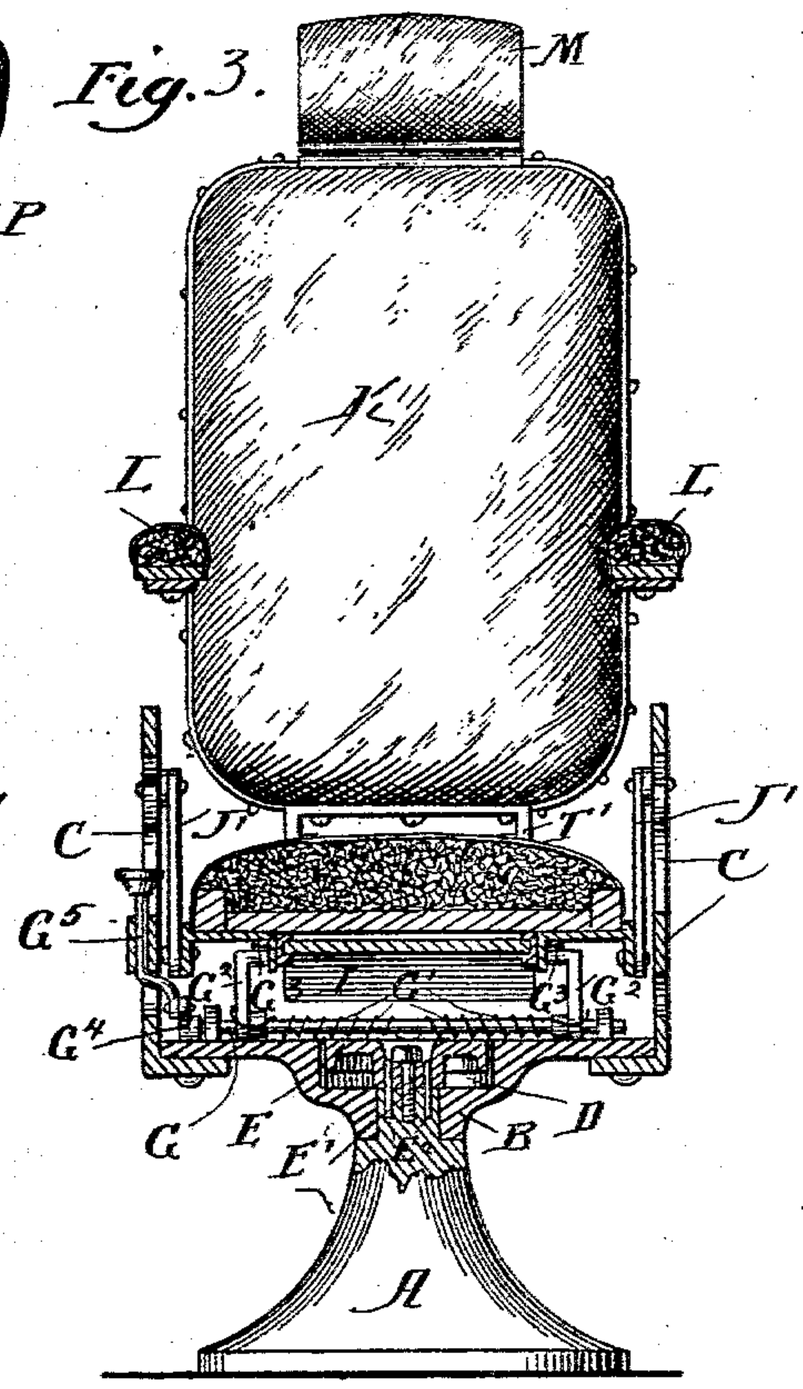
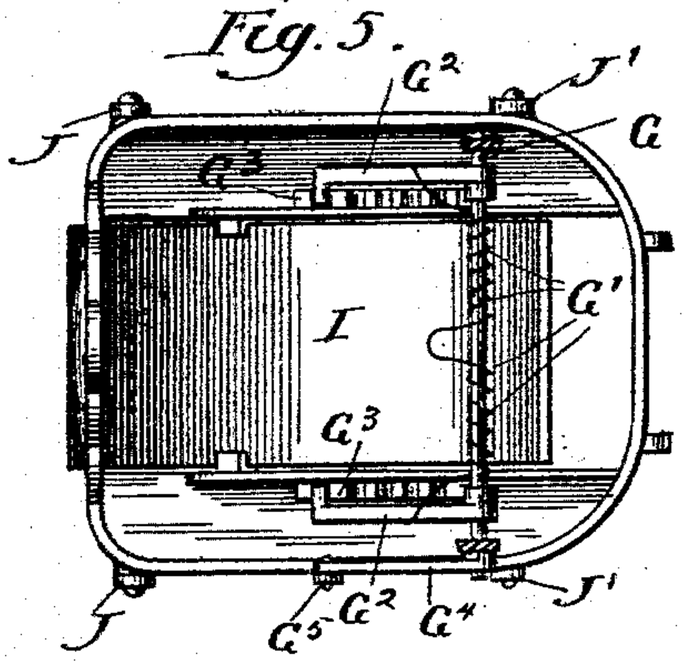


Fig. 5.



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UNITED STATES PATENT OFFICE.

EDWIN PYNCHON, OF CHICAGO, ILLINOIS.

CAR-CHAIR.

SPECIFICATION forming part of Letters Patent No. 516,110, dated March 6, 1894.

Application filed November 22, 1889. Serial No. 331,172. (No model.)

To all whom it may concern:

Be it known that I, EDWIN PYNCHON, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Car-Chairs, of which the following is a specification.

My invention relates to railroad car chairs and has for its object to provide cheap, simple and convenient reclining chairs especially adapted for railroad cars.

My invention is illustrated in the accompanying drawings, wherein—

Figure 1 is a side view of the chair in an upright position; Fig. 2 a side view of the same reclining. Fig. 3 is a part front and section view of the same. Fig. 4 is a vertical section through the chair. Fig. 5 is a detail of the devices for locking the swinging seat.

Like parts are indicated by the same letter in all the figures.

A is a permanently fixed supporting pedestal on which rotates the frame B, from which rise the side pieces C C.

D is a circular cavity in the frame B within which rests the removable securing device E attached to the pedestal by the screw bolt E′ and dowel pins E^2 E^2.

F is a spring actuated rod supported in bearings on the frame B and provided at its inner end with a catch F′ adapted to lock the rotating frame to the pedestal. Secured on the rotating frame is the transverse rod G about which passes the spring G′ and on which are secured the dogs G^2 G^2 adapted to engage the racks G^3 G^3 secured to the swinging seat. To this rod is also secured the arm G^4 from which rises the handle G^5. Thus by operating the handle the dogs may be thrown out of contact with the racks to free the swinging seat frame, and by the spring which encircles the shaft or rod they are normally kept in contact with the racks to lock the swinging seat frame into position. This swinging seat frame or seat is supported upon the standards or side pieces C C by the links J J and J′ J′. The links J J are upwardly lengthened and pivoted to the outer extremities of the arms L L. These arms are pivoted at their other ends to the sides of the back. At the lower end of the back are the lugs T′ T′ pivoted to the bars T T which rise from the rear of the seat. I is the curved foot rest, received into the frame when out of use. M is the upper portion of the back shaped as shown and eccentrically pivoted upon the pin N which projects from the lower part of the back. This pin N is provided with a pin, collar and spring O which bears against a collar or portion attached to the upper part M of the back, thus this part is kept in close contact with the lower part.

The use and operation of my invention are as follows: The dogs G^2, G^2, are normally held by the spring in contact with the racks but when the chair is to be brought into reclining position by pressing down upon the handle the lock shaft will be rotated in its bearings and the dogs released from the racks whereupon the seat will freely swing upon its hangers in either direction. The handle when released permits the dogs to relock the seat into whatever position it may be found. When it is desired to rotate the chair on its pedestal it should be brought into the upright position shown in Fig. 1. The handle being operated the dogs will be free from the racks and the chair may be easily swung slightly to the rear on its hangers. The lower depending portion will then engage the extended end of the catch thus forcing the latter inwardly and releasing it from the securing portion of the pedestal, the chair may be turned now on its center, which is the center of the pedestal. It will be observed that the chair proper extends slightly to the rear of this pedestal, and hence by first turning one chair until its forward portion is opposite the other, the other or adjacent chair may then be freely swung and thus the chairs be capable of rotating in an exceedingly narrow space so that four chairs or two on each side of the aisle may be employed in a car of no great or the usual width. As the chair is inclined the back rapidly retreats or swings on its pivots and at the same moment the seat moves forward thus retaining the center of gravity and the chair and occupant substantially over the center of the pedestal. The back pivoted at an elevation above the bottom of the seat leaves, when the chair is in a reclining position, a much greater space for the feet of the occupant of the next chair in the rear, while at the same time a much better support

is given to the back of the occupant than in case of a chair in which the back and seat are pivoted together or approximately on the lower edge of the latter. The seat being supported on the hangers is free to move in any direction when unlocked and requires very little effort for its adjustment. The chair will return to an upright position by simply releasing the lock and then sitting upright, the weight of the occupant causing the adjustment of the chair as shown in Fig. 2. The rear edge of the seat engages the rear portion of the revolving frame which limits the extent of inclination of the chair. It will also be observed that as the seat advances its forward end rises as it is supported by the hangers and thus a more comfortable position is given the occupant than if the seat remained parallel with its original position or the floor of the car or level. Thus the chair while presenting by reason of its serpentine outline a sufficiently extended surface to the body of the occupant, does not take so great a space measured along the length of the car as might be expected and as frequently occurs in the case of reclining railroad car seats.

The upper portion or revolving frame can be easily removed from the pedestal by taking out the securing plate E, first removing the pin E'. When this plate is removed the entire upper portion of the chair can be lifted off.

Were the forward end of the chair arm pivoted at a fixed point the inclination of the back would be less rapidly changed in the process of adjusting the chair than when it is pivoted to a moving point as shown in the drawings. This arrangement causes the upper portion of the back to retreat more rapidly than the lower portion advances responsive to the motion of the seat.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is as follows:

1. In a railway car chair, the combination of a supporting frame with a movable seat, a back pivoted to the seat, arms pivoted to and forwardly extending from said back, and angular supporting pieces pivoted at their upper ends to the ends of such arms, at their lower ends to the front of the seat, and midway to the supporting frame, and hangers supporting the rear of the seat from the rigid frame of said seat below the points of connection between the rigid frame and the hangers and supports said supporting pieces and hangers downwardly diverging from their joints of support on the frame, whereby when the back is inclined, the angle between the seat and back is increased, and the seat is forwardly moved and elevated at its front end.

2. In a railway car chair the combination of a supporting frame with a seat, hangers pivotally connected above to the supporting frame and below to the seat, one at the front and the other at the rear on each side, said hangers independent of each other and separated at their upper ends and diverging downwardly from each other, the forward hangers being angular and extending upwardly from their pivoted connection with the supporting frame, to a pivoted connection with the arm of the chair.

3. In a railway car chair the combination of a supporting frame with a seat, hangers pivotally connected above to the supporting frame and below to the seat, one at the front and the other at the rear, on each side, said hangers independent of each other and separated at their upper ends, and diverging downwardly from each other the forward hangers being angular and extending upwardly from their pivotal connection with the supporting frame, a pivoted or hinged back and chair arms pivotally connected at the forward ends with such upwardly projecting forward hangers and also with the back.

EDWIN PYNCHON.

Witnesses:
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