

ALPHEUS B. DINSMORE.

[20.]

IMPROVEMENT IN RAILWAY CAR SEATS.
No. 119,331. Patented Sep. 26, 1871.

FIG. 1

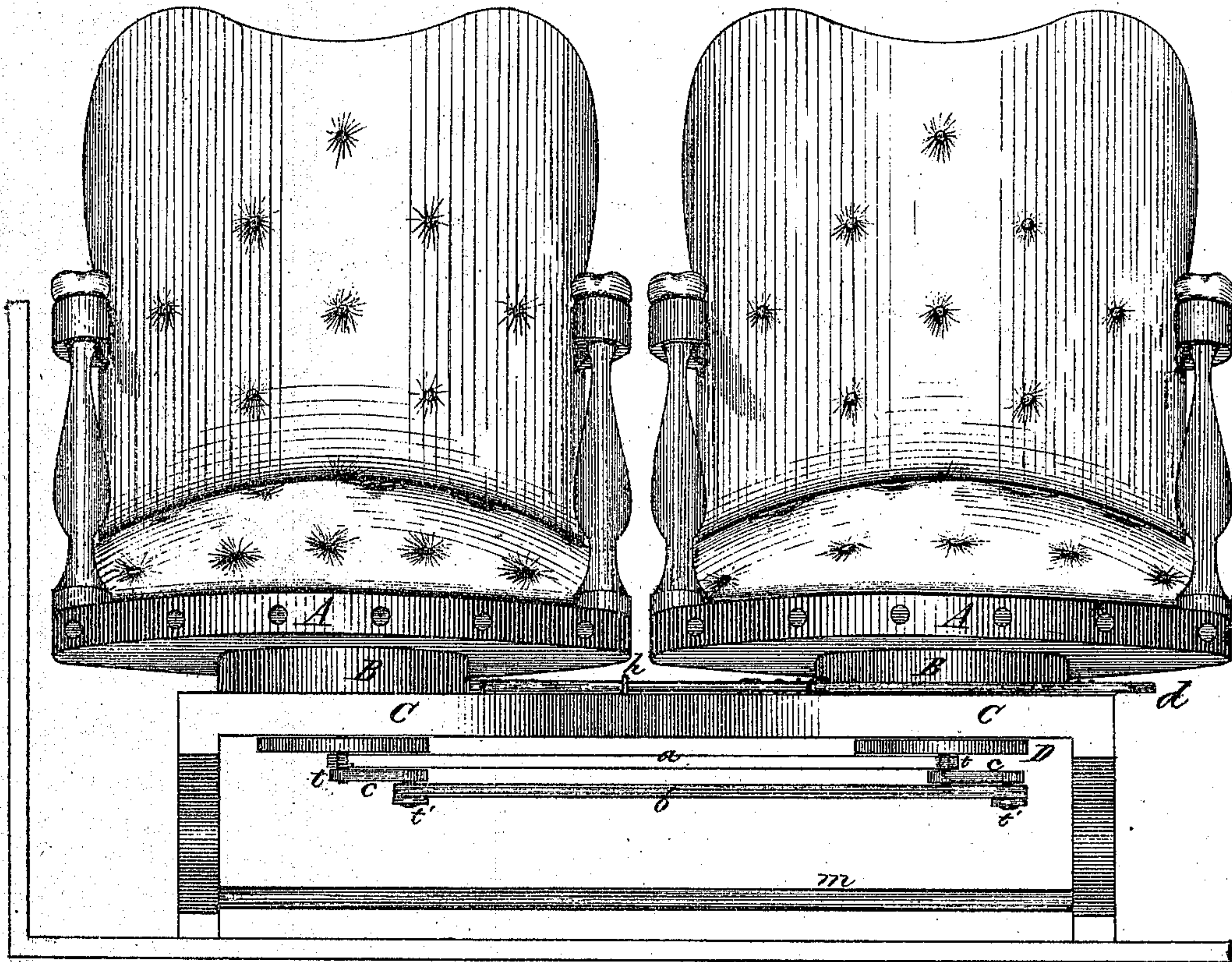
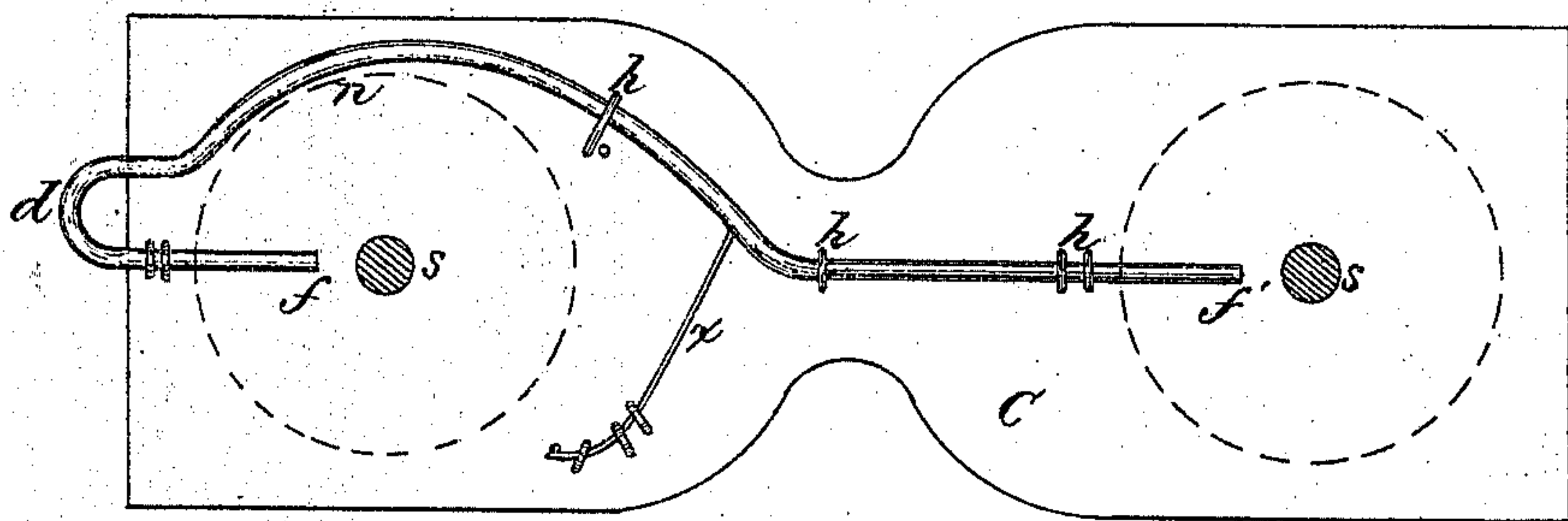


FIG. 2



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[20.]

Plate 2.

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FIG. 3

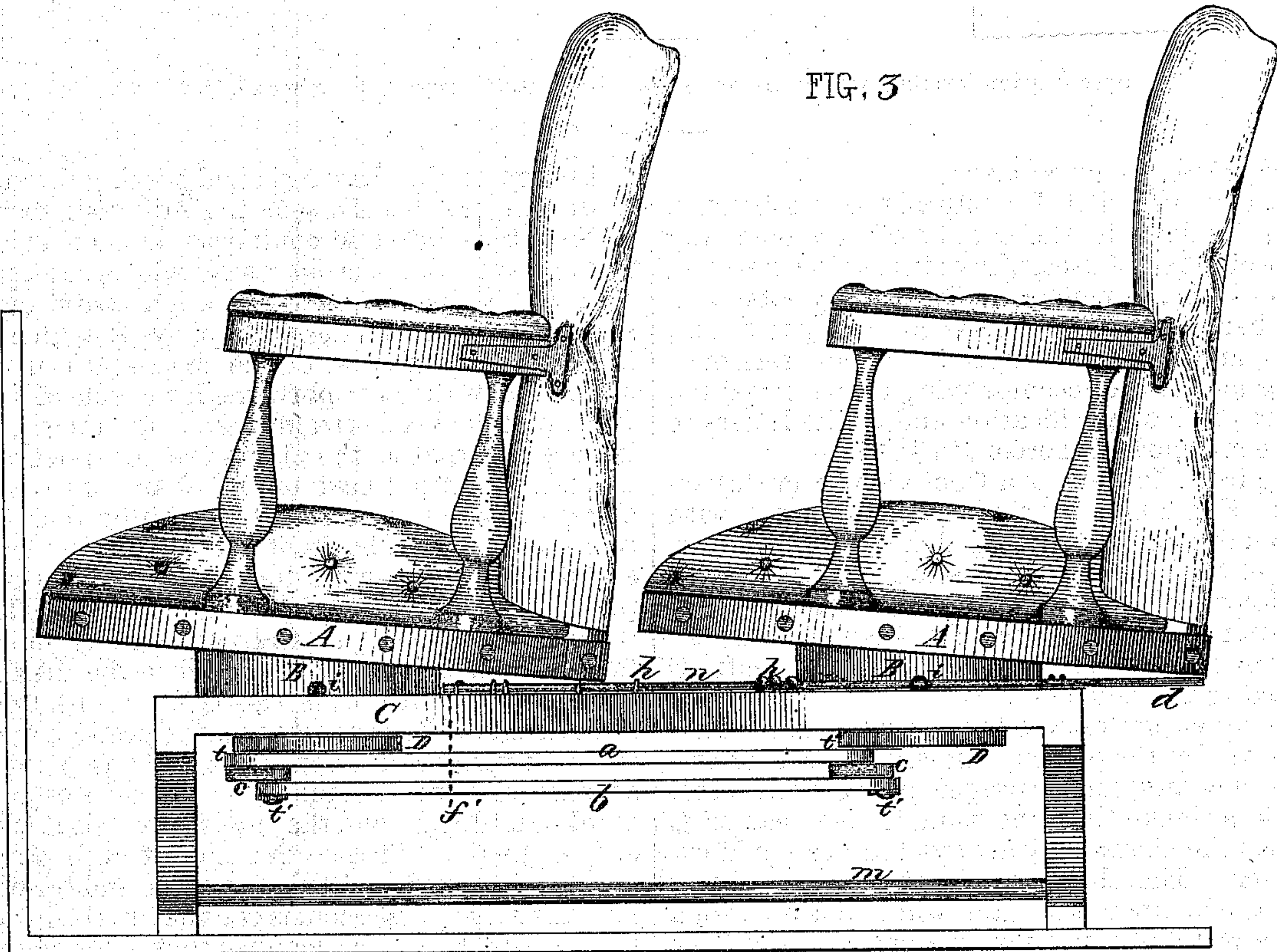
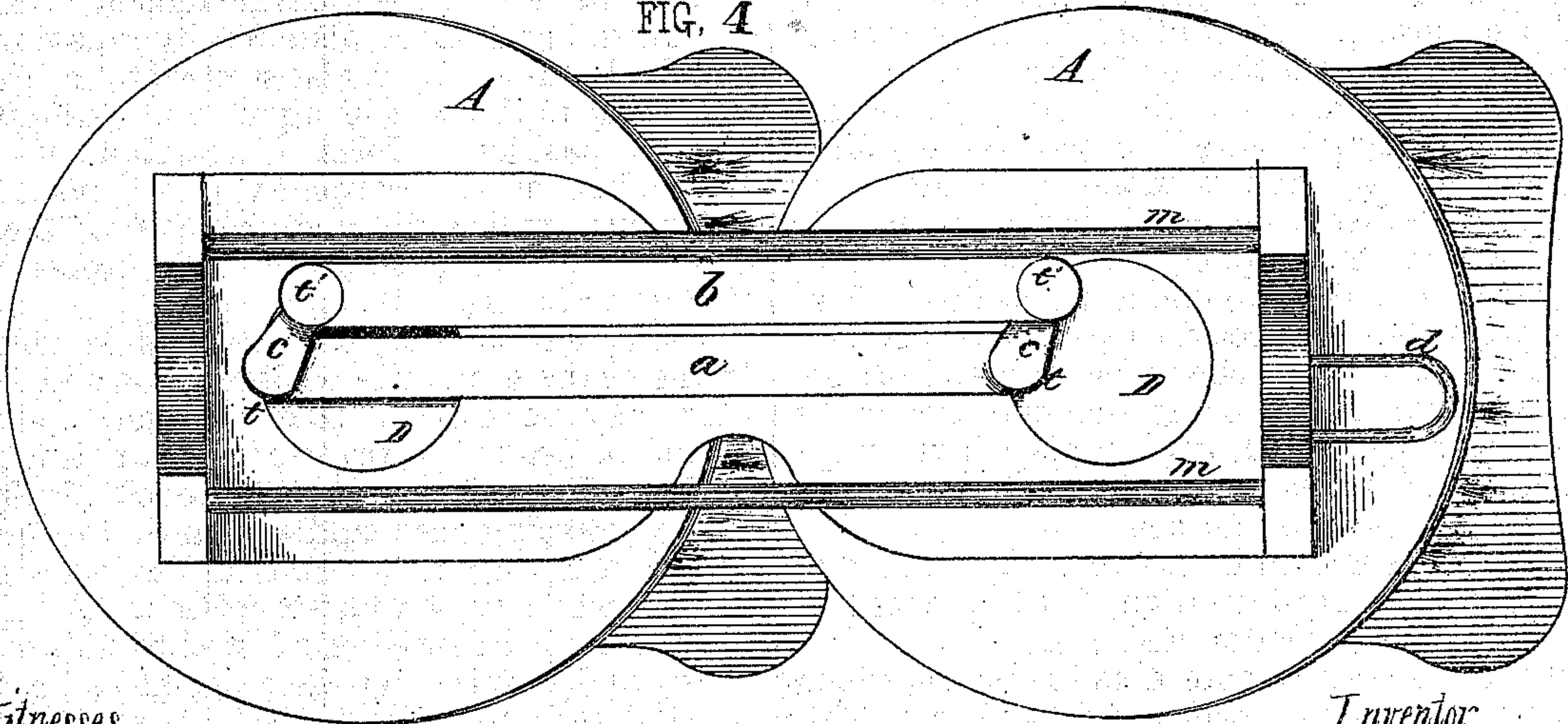


FIG. 4



Witnesses,

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UNITED STATES PATENT OFFICE.

ALPHEUS B. DINSMORE, OF SPRINGFIELD, MASSACHUSETTS.

IMPROVEMENT IN RAILWAY-CAR SEATS.

Specification forming part of Letters Patent No. 119,331, dated September 26, 1871.

To all whom it may concern:

Be it known that I, ALPHEUS B. DINSMORE, of Springfield, in the county of Hampden and State of Massachusetts, have invented a new and useful Improvement in Railway-Car Seats; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing making a part of this specification and to the letters of reference marked thereon, in which—

Figure 1, Plate 1, is a front view of my invention. Fig. 2 is a plan view of the bench with the chairs removed. Fig. 3, Plate 2, is a front view of the bench with the seats or chairs turned one-fourth of a complete circle to show the inclination of the seat; and Fig. 4 is a reverse plan view of the whole arrangement with the seats attached to the bench.

My invention relates to the seats used in railway-cars by the passengers; and consists of two seats or chairs, each arranged upon a whirl-plate, which is thicker in front than in the rear part, so that the chairs may always retain an inclined position. The chairs are kept elevated above the bench, upon the said whirl-plates, which plates rest and turn upon the bench. A bolt or screw passes down through the seat of the chair, and also through each whirl-plate and the bench, into a disk beneath the bench, thus securing the seat and whirl-plate and the disk together, the whirl-plate being secured to the lower side of the seat, and a crank is made upon the lower side of each disk, said crank being attached to the disk near its periphery, or eccentric with it, so that the crank is double upon the disk. Two horizontal bars connect the two cranks together, so that if one of the chairs be rotated horizontally the same movement is communicated to the other chair, and a rod, kept in place in the stops in both whirl-plates by a spring, serves to secure the chairs in position for use.

That others skilled in the art may be able to make and use my invention, I will proceed to describe its construction and operation.

In the drawing, C represents the bench, which may be made of iron, and as light and ornamental as desirable; and resting immediately upon the said bench are two whirl-plates, B, which are firmly secured to the lower side of the chair-seats A. A hole is made at *s* in the bench C, through which passes a bolt or screw, inserted

in the top of the chair-seat, and passing through down into the disk D, securing said disk firmly to the whirl-plate and chair-seat, in such a manner, however, that the chair-seat, whirl-plate, and disk will be free to revolve in a horizontal manner. That part of the whirl-plate B which is beneath the front part of the chair-seat is made thicker than the rear part, the lower side of said whirl-plate being horizontal, and the upper part inclined, so that as the chairs are revolved horizontally the front part of the chair-seat A will always retain a more elevated position than the rear part, and the back of the chair may have any desired permanent inclination from a perpendicular given to it, to insure comfort. The inclination of the chair-seat and back is shown fully in Fig. 3, Plate 2. Secured to the disk D, and eccentric with it, is the crank *c*, one upon each disk, and in the same relative position upon the disk with each other. The bar *a* is pivoted at each end to the pin *t*, which secures each crank to its disk D, and the bar *b* is pivoted at each end to the pin *t'* at the other end of each crank *c*. A bolt or rod, *n*, having the two ends or projections *f* and *f'* thereon, is confined to the bench C by clasps *h*, in such manner that said rod will slide or have a longitudinal movement, as it may be drawn out a short distance by grasping the handle *d*; the spring *x*, also secured to the bench, operating to throw it in again and retaining it in that position. Holes, *i*, are made in each whirl-plate at the periphery, one opposite the other, into which the ends *f* and *f'* of the rod enter to secure the chairs in their proper position when in use.

The operation of my invention is as follows: If the chairs are in the position shown in Fig. 1 they may be used in that position; and if it should be desired to reverse them or turn them horizontally half a revolution the rod *n* is drawn out by grasping the handle *d* until the ends *f* and *f'* are withdrawn from the holes *i*, when either chair may be rotated horizontally. If the rod *n* then be released or allowed to slide in, the ends *f* and *f'* will enter the other holes *i* in both whirl-plates when the chairs have made half a revolution. When either chair is rotated the disk *d* rotates with it, and the movement of one crank is communicated to the other by the bars *a* and *b*, said bars serving to keep both cranks and disks in the same relative position with each

other. As both chairs revolve horizontally the front part of each seat A always retains a position more elevated than the rear part, thus furnishing a most comfortable seat in either position of the chair. If each chair is made with arms there will be plenty of room for each passenger; and, as the arms can be made shorter in this manner than in the ordinary car-seat in use, it will be much easier for travelers in taking and leaving their seats, as the arms will not catch the clothing. This invention does away with the great noise and jar, and much consequent injury to the seat in the usual method of reversing the car-seat by turning over the back of the seat in a vertical direction, as in my device the chairs are noiseless in their movement, and cause no jar whatever; and by turning them always toward or facing the wall side of the car any degree of inclination may be given to the back that may be desirable. The back may be made of wood or iron, as the case may be, and the whole device may, of course, be made

as ornamental as desirable, and all of iron, if preferable. It is believed that this chair will be much easier than the ordinary car-seat, as it is entirely independent of the side or wall of the car, and will not therefore partake so much of the motion of the car.

I am aware that various devices for reclining-chairs have heretofore been used in railway cars, and I do not claim the same, nor any part thereof irrespective of my construction and arrangement; but having thus described my invention, what I do claim as new, and desire to secure by Letters Patent, is—

A duplicate car-seat, consisting of the seats A and beveled whirl-plates B, pivoted to and turning upon the bench C, and made to operate simultaneously by means of the disks D, cranks *c* and bars *a b*, substantially as described.

ALPHEUS B. DINSMORE.

Witnesses:

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CLARENCE BUCKLAND.

(20)