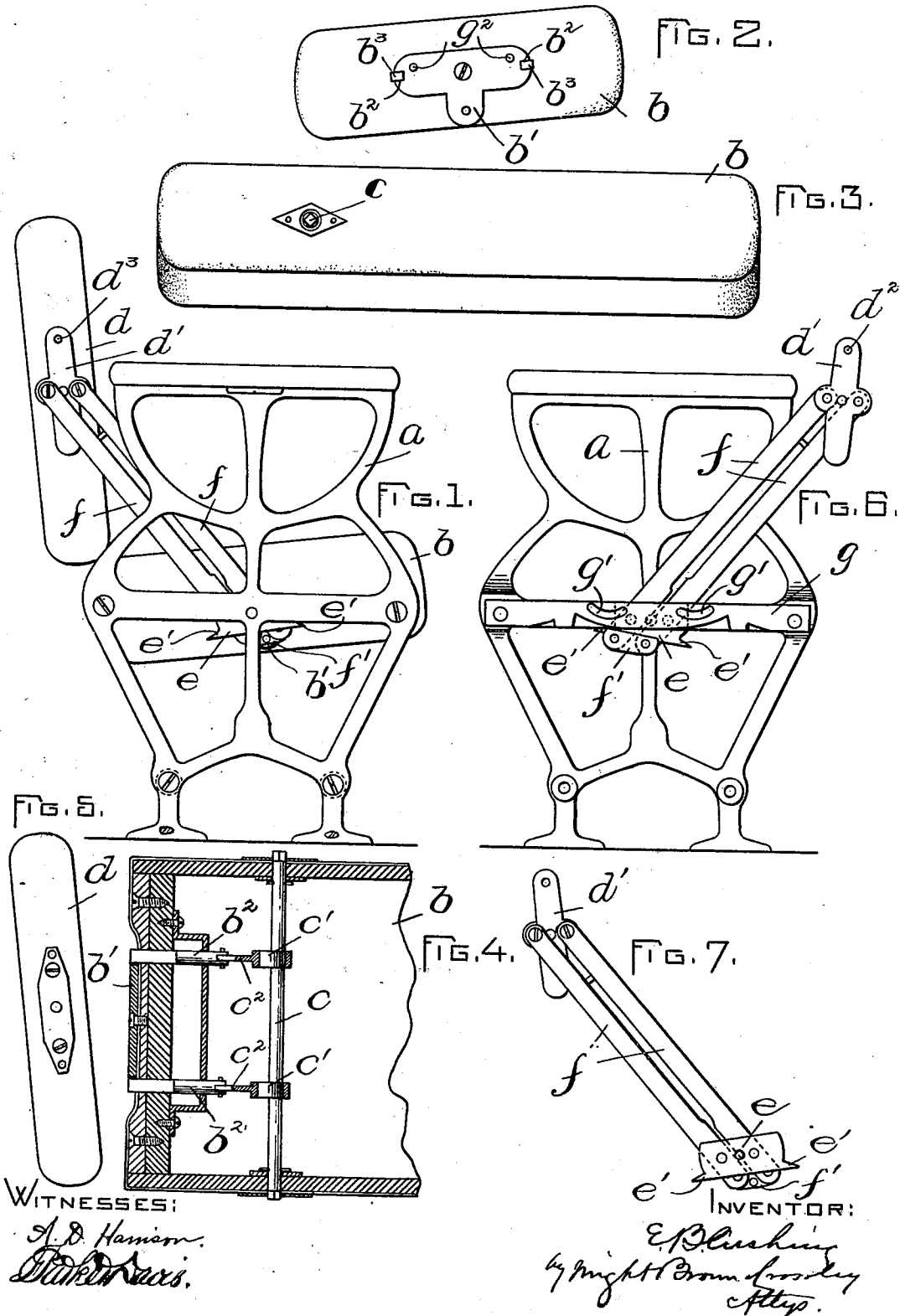


(No Model.)

E. B. CUSHING.
RAILWAY CAR SEAT.

No. 512,539.

Patented Jan. 9, 1894.



UNITED STATES PATENT OFFICE.

EMERY B. CUSHING, OF LACONIA, NEW HAMPSHIRE.

RAILWAY-CAR SEAT.

SPECIFICATION forming part of Letters Patent No. 512,539, dated January 9, 1894.

Application filed May 22, 1893. Serial No. 474,991. (No model.)

To all whom it may concern:

Be it known that I, EMERY B. CUSHING, of Laconia, in the county of Belknap and State of New Hampshire, have invented certain new and useful Improvements in Railway-Car Seats, of which the following is a specification.

This invention relates to certain improvements in railway car seats, and one object of the invention is to provide improved means for rendering the seat bottom reversible, so that both sides may be utilized, and the life of the seat thereby prolonged.

The invention also has for its object to provide means for moving the seat back and forth in unison with the movement of the back to change the inclination of the seat and its projection over the edge of the supporting frame according to the direction in which the seat, as a whole, is to face.

To the above ends, the invention may be said to consist in the novel features of construction and combinations of parts herein-after described and claimed.

Reference is to be had to the annexed drawings, and to the letters marked thereon, forming a part of this specification, the same letters designating the same parts or features, as the case may be, wherever they occur.

Figure 1 shows an end elevation of the seat. Fig. 2 shows an end view of the seat bottom. Fig. 3 shows a front view of the seat bottom. Fig. 4 shows a horizontal section of the seat bottom. Fig. 5 shows an end view of the back. Fig. 6 shows a view of the inner side of the outer supporting-frame and attached parts. Fig. 7 shows a detail of arms which support the back.

In the drawings: the reference letter *a* designates the end supporting-frames, the outer one of which also constitutes an arm of the seat.

The seat-bottom *b*, which is upholstered on both sides, is pivotally connected with a pair of plates *b'*, adapted to fit against the ends of the said seat bottom, and supported from the frames *a*, as will hereinafter appear. The plate *b'* at the outer end of the seat bottom has a notch *b²* in each end; and a pair of bolts *b³*, embedded in the seat *b*, are adapted to engage said notches and thereby hold the plate and seat bottom rigidly together.

A rod *c* extends transversely through the

seat, and has square ends, adapted to receive a key for turning the rod. The said rod carries a pair of eccentrics *c'*, which are connected by pitmen *c²* with the bolts *b³*, and hence, by turning said rod, the seat bottom and plate may be locked and unlocked. When unlocked, the seat bottom may be turned completely over, so as to bring its under side up- permost. Thus, when one side becomes worn, the seat bottom may be reversed, and the other side used, while the worn side is concealed from view.

The back *d* is pivoted to plates *d'*, fitting against each end of it, and these plates have openings *d²*, which are adapted to register with openings in the end of the back. Pins *d³*, inserted through the registering openings, serve to lock the back to the plates. There are two openings in each end of the back, and the latter may be turned over, so as to present either side for use, both sides being upholstered, and may be locked in either position. Thus, when one side of the back becomes worn, it may be reversed and the other side used.

The connections between the back and the seat bottom, whereby the seat may be reversed so as to face forward going in either direction, will next be described. The construction being the same at each end of the seat, it will suffice to describe that at one end only. A cross-piece or plate *e* is pivoted centrally to the frame *a*, and occupies a recess in the inner side of said frame, the said cross-piece being allowed play on its pivot which is limited in each direction by projections *e'* at the ends of the cross-piece, encountering portions of the frame at opposite ends of the recess. A pair of parallel arms or bars *f* are pivoted at their upper ends to the plate *d'* on the back, and at their lower ends to a cross-head *f'*, which is pivoted to the plate *b'* on the seat bottom. The said parallel arms or bars are also pivoted to the cross-piece *e*. A plate *g* is fastened to the inner side of the frame *a*, and has a pair of curved grooves *g'* formed in it, to receive pins *g²*, projecting from the plate *b'* on the seat bottom. The effect of this construction is to cause the seat bottom, in both adjustments of the seat, to assume the desired slightly angular position, with the rear edge in a lower plane than the front edge, and the proper position of the back is also in-

sured. This result is due to the parallel arms which hold the back-plate d' in a positive position, and to pivotally supporting said arms above their connection with the seat-plate, whereby the seat is moved simultaneously with the back, and also to pivoting the parallel arms to the cross-piece e , which is allowed a play, so that, after the parallel arms reach the limit of their movement relative to each other, they may move together sufficiently to tilt the seat, the latter being properly guided by the engagement of the pins g^2 in the grooves g' .

It is evident that the construction here shown may be varied without departing from the spirit and scope of the invention, and hence the invention is not limited to such construction.

Having thus explained the nature of the invention and described a way of constructing and using the same, although without attempting to set forth all of the forms in which it may be made or all of the modes of its use, it is declared that what is claimed is—

1. A railway car seat, comprising in its construction a reversible seat bottom pivoted to plates on the frame-work of the seat, bolts in the seat bottom adapted to engage one of the said plates and thereby lock the seat bottom, a rotatable rod extending through the seat proper, and eccentrics on said rod and connected with the said bolts.

2. A railway car seat, comprising in its construction the seat bottom and the back, and

a pair of parallel arms at each end of the seat, each pair of arms being pivotally connected with the seat bottom and with the back, and both arms of a pair supported on a single pivot above their connection with the seat portion.

3. A railway car seat, comprising in its construction the seat bottom and the back, a pair of parallel arms at each end of the seat, each pair of arms being pivotally connected with the seat bottom and with the back, and a cross-piece pivoted to a stationary support and pivotally connected with the arms, said cross-piece having projections at each end adapted to encounter fixed stops.

4. A railway car seat, comprising in its construction the seat bottom and the back, a pair of parallel arms at each end of the seat, each pair of arms being pivotally connected with the seat bottom and with the back, a cross-piece pivoted to a stationary support and pivotally connected with the arms, said cross-piece having projections at each end adapted to encounter fixed stops, and a fixed support having curved grooves which receive pins projecting from the seat bottom.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, this 16th day of May, A. D. 1893.

EMERY B. CUSHING.

Witnesses:

WILLIAM A. PLUMMER,
S. S. JEWETT.