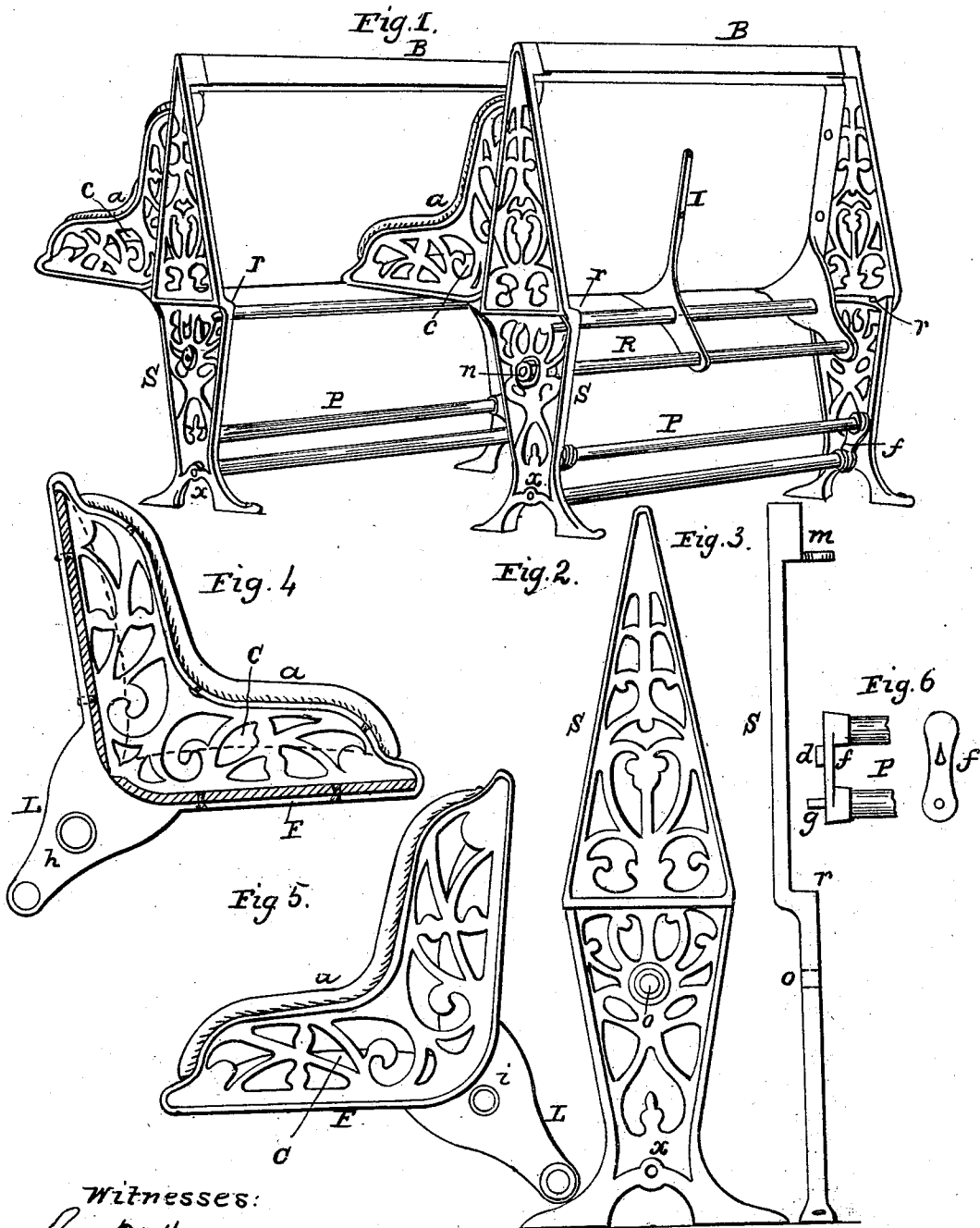


W. H. SOPER.

Car Seat.

No. 106,739.

Patented Aug. 23, 1870.



Witnesses:
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W. HORACE SOPER, OF BALTIMORE, MARYLAND.

IMPROVEMENT IN RAILWAY-CAR SEATS.

Specification forming part of Letters Patent No. 106,739, dated August 23, 1870.

I, W. HORACE SOPER, of the city of Baltimore and State of Maryland, have invented an Improved Reversible Car-Seat, of which the following is a specification:

This invention embraces a reversible car-seat constructed upon curved metallic frames, and supported by levers attached to the apex or center of the frames, and pivoted to the central points on standards which have both their borders of the same mechanical construction. It also embraces a reversible foot-rest, formed of two rounds, inserted into bars which move upon trunnions, and it includes a combination of a movable seat and back with a fixed back.

When the seat is reversed it moves under the fixed back, and that part which is the seat in one position becomes the back in the other, and vice versa. The reversal is made by a single movement, and the seat sustains the same relation to the standards on either side.

The plan and construction of the seats are clearly shown in the drawing, of which—

Figure 1 is a perspective view of a set of the seats. Fig. 2 is a view of the outside of the standard S. Fig. 3 is a sectional view of the standard S. Fig. 4 is a sectional view of the inside of the metallic seat-frame F. Fig. 5 is a view of the outside of the metallic seat-frame F, showing the stop *i*. Fig. 6 is a view of the back and the side of the foot-rest bar *f* and a section of the rounds of the foot-rest P.

The standard S has both its borders of the same mechanical construction. It has an offset to bring the lower section under the seat-frame F, while the upper section is outside of the seat. At each end of the offset there is a rest, *r*, which is the bearing for the stop *i* on the lever L; and at a central point on the standard, below the offset, there is a socket, *o*, to receive the rod R. The top of the standard contains a mortise, *m*, to receive the fixed back B, which is secured to the standard by screws through a lug, as shown. In the center of the brace, between the feet of the standard S, there is a socket, *x*, to receive the trunnion *g* of the foot-rest P.

The metallic seat-frame F, Fig. 4, is so curved as to give proper inclination to the seat and back. It has a lever, L, attached to the apex or center of the frame, and extended in a perpendicular direction to a line drawn between

the extreme ends of the frame. The metallic seat-frame has a flange around its entire border to receive and support the wood frame of the seat and arm, as shown in Fig. 4.

On the outside of the lever L, Fig. 5, there is a stop, *i*, which should be covered with some elastic material to deaden the noise when the seat is reversed; but the covering is not essential. The wood frame of the seat must be made to suit the kind of upholstering. It is secured to the metallic seat-frame, as shown, by screws. The arm *a* is made of wood, and should be cushioned. It is secured to the seat-frame by screws, as shown.

The seat-cushion C may be made with or without springs. The fixed back B may be of any desired width, and the upper surface may be of ornamental shape. It should be cushioned to correspond with the movable back.

The bifurcated cleat I, Fig. 1, is intended to support the middle of the seat; but it is not essential. The foot-rest bar *f*, Fig. 6, has two collars on the inside to receive the rounds of the foot-rest P, and a trunnion, *g*, and a stop, *d*, on the outside. The seat is attached to the standards S S by the rod R, which passes through the standards, the cleat I, and the levers L L, and is secured by the nut *n*, as shown in Fig. 1. The rod R is the fulcrum of the levers L L and the axis of the movable seat.

The stops *i i* on the levers L L find bearings on the rests *r r* on the standards S S. By this mechanical arrangement the seat is reversed and supported.

In lieu of the rod R, the seat may be pivoted to the standards by trunnions, as shown in the front seat, Fig. 1.

The foot-rest P is attached to the standards S S by the trunnions *g g*, which enter the sockets *x x*. It is moved from side to side of the standards, and is supported by the stops *d d*, which find a bearing against the ribs of the standards, as shown in Fig. 1.

This invention secures to the passenger a more comfortable seat. It protects the seats against abuse, and it affords great facilities for cleansing the car.

I do not claim, broadly, a reversible car-seat, of which the seat, when reversed, becomes the back, and vice versa; but

I claim, specifically, as follows:

1. The standards S S, constructed with off-sets, as shown, and having the rests *r r*, situated so as to form the bearings for the stops *i i* on the levers L L, which support the pivoted seat, substantially as described, and for the purpose hereinbefore set forth.

2. The seat-frames F F, provided with levers L L, pivoted as shown, and having suitable stops *i i* to arrest and sustain the levers, substantially as described, and for the purpose hereinbefore set forth.

3. In combination with the seat supported on the frames F F, the cleat I, substantially as described.

4. A reversible car-seat, when said seat is supported on levers projecting downward and

pivoted to the standards, so that the seat may be reversed by turning it on the axis from one side of the standards to the other, substantially as described, and for the purpose hereinbefore set forth.

5. The combination of the fixed back B with a reversible back and seat, substantially as described.

6. The combination of a reversible seat with the foot-rest P, pivoted on its lower edge, so as to tip from side to side and rest on the stop *d*, substantially as described.

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