(No Model.)

H. S. HALE.

CAR SEAT.

No. 459,578. Patented Sept. 15, 1891.

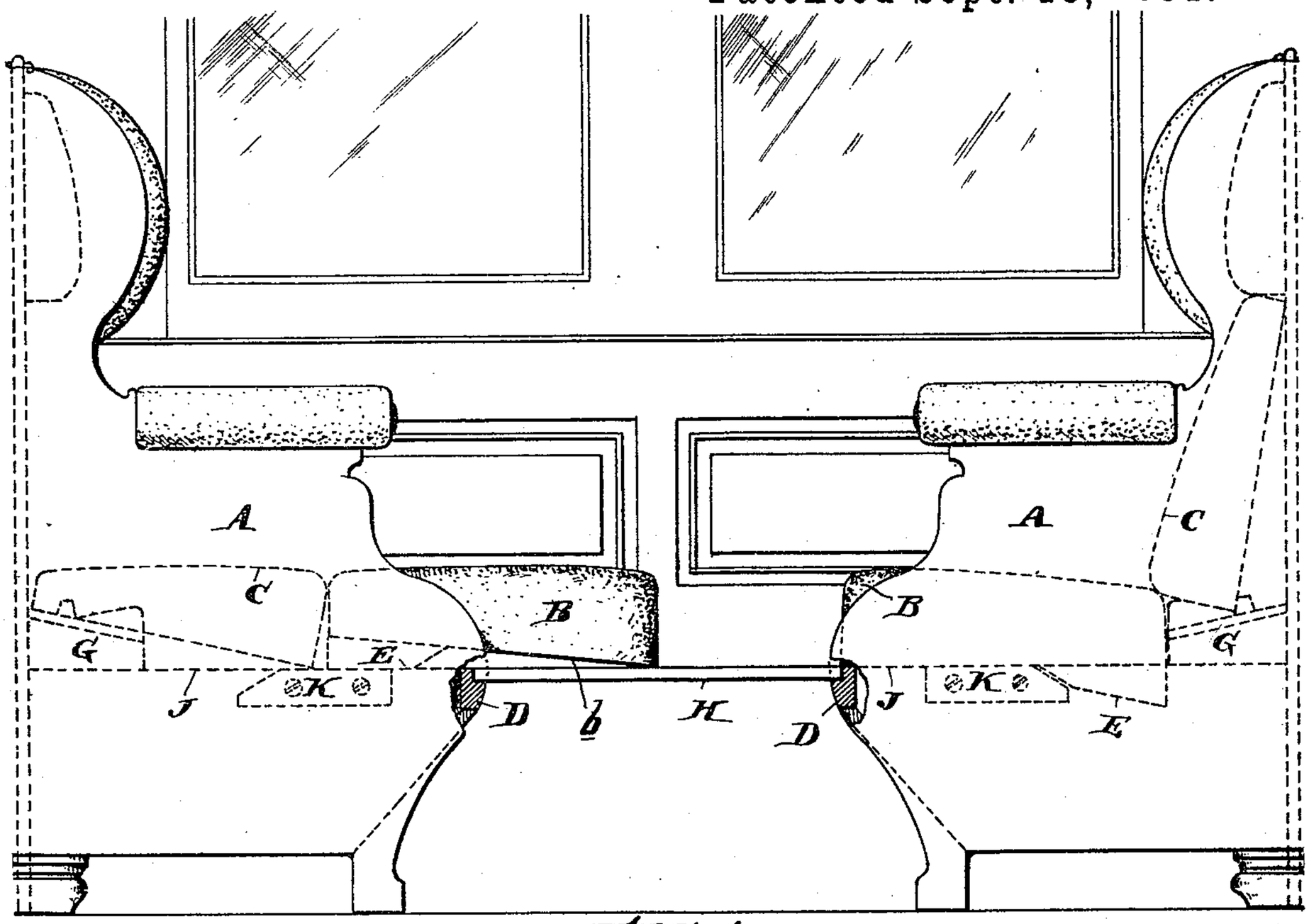

FIG. 1.

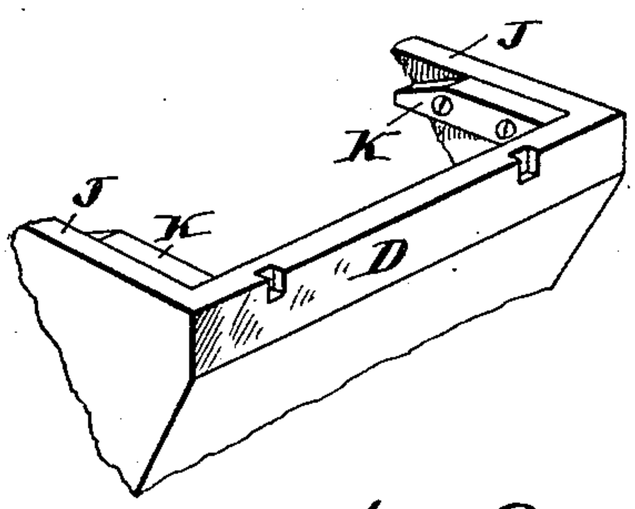

FIG. 2.

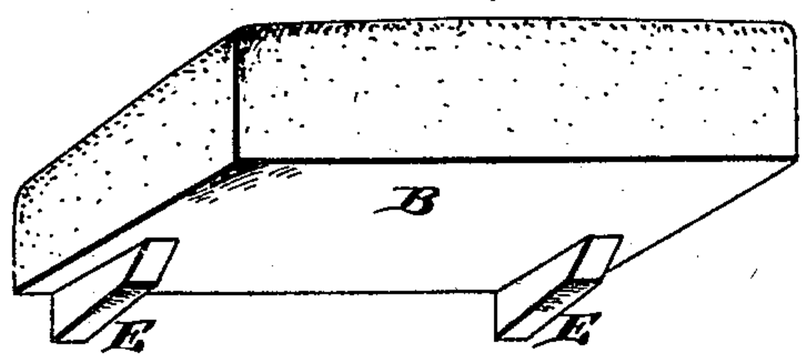

FIG. 3.

Witnesses:
Henry Krum
A. J. Krum

Inventor:
Henry S. Hale
By his atty
Thos. Hunker

UNITED STATES PATENT OFFICE.

HENRY S. HALE, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO THE HALE & KILBURN MANUFACTURING COMPANY, OF SAME PLACE.

CAR-SEAT.

SPECIFICATION forming part of Letters Patent No. 459,578, dated September 15, 1891.

Application filed February 13, 1890. Serial No. 340,335. (No model.)

To all whom it may concern:

Be it known that I, HENRY S. HALE, of the city and county of Philadelphia, and State of Pennsylvania, have invented an Improvement in Car-Seats, of which the following is a specification.

My invention has reference to car-seats; and it consists of certain improvements, which are fully set forth in the following specification, and shown in the accompanying drawings, which form a part thereof.

My improvements set out in this application have particular reference to the car-seats employed in sleeping-cars, wherein the cushions of the two oppositely-facing seats are adjustable for the purpose of converting the two seats into a berth. A great difficulty which has heretofore existed in seats of this kind has been that the cushions when adjusted to form the berth were required to be substantially horizontal, and this necessitated in the constructions heretofore used that the said cushion should also be horizontal when moved back to its place for the occupancy of the passenger during the day-time. The seat-cushions of the double seat of a sleeping-car forming a section preferably have their upper and lower surfaces made at an angle when employing my invention, because when the seat is put into position for the day-time and rests upon the upper horizontal part of the main frame, the forward edge of the seat being much higher than the rear edge, the natural inclination of the seat is given, as desired. When the seat-cushion is drawn out for the night-time, the rear edge of the seat-cushion is raised up automatically and brought to substantially the same level as the front edge, thereby imparting to the berth a substantially horizontal upper surface, as desired.

Referring to the drawings, Figure 1 is a side elevation of a section of a sleeping-car in which the seats embody my invention. Fig. 2 is a perspective view illustrating a part of the main frame of the seat, and Fig. 3 is a perspective view of one of the seat-cushions slightly inclined upward.

A A are the two main frames forming the two seats, which face each other, constituting a section in a sleeping-car. B B are the two seat-cushions and are movable so as to form the berth.

C C are the seat-backs, and are supported in conjunction with the frames G G to form the other part of the berth or the back, as shown.

Heretofore the lower edge *h* of the seat-cushions has remained horizontal and rested at all times upon the upper edge J of the main frame or upon the seat edge J and the rail H, the latter part being used during the night-time. In such cases the upper surface of the cushion B remains horizontal both during the night-time and the day-time, and was therefore very objectionable during the day-time, and if an inclination was given to the upper surface, as indicated in the right-hand portion of the drawings, then when drawn out to form the berth the upper surface of said berth would be irregular and uncomfortable.

In carrying out my invention I provide the main frame with projections K and the under and rear portion of the seat-cushion B with inclined projections E, which act in conjunction with the projections K, as shown in the various figures. When the seat-cushions are moved back during the day-time, as shown in the right-hand portion of Fig. 1, the projections E are to the rear of the projections K, and the seat-cushion rests upon the horizontal surface or édge J of the main frame, and the incline of the upper surface of the seat-cushion is obtained for comfort. If the seat-cushion is now pulled out for use as a berth, as shown in the left-hand part of Fig. 1, the forward edge is sustained upon the cross-rail H, and the projections E at the rear part of the cushion run upon the projections K and raise the rear end of the cushion high enough to bring it to the same level as the front edge of the cushion, thus giving to the upper surface of the cushion a horizontal position and making it meet the horizontal surface of the back C when extended as shown. By this means the seat-cushions may have all the advantages of an inclined seat during the day-time and a horizontal mattress during the night-time. It is immaterial to my invention how the rear portion of the said seat B may be raised, as various devices

might be resorted to for accomplishing this result; but the construction here disclosed is excellently adapted for the purpose.

Having now described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a car-seat, the combination of a stationary seat-frame having a horizontal supporting-surface, a removable seat-cushion adapted to be moved over said stationary horizontal supporting-surface and having a greater depth at its front than at its rear portion, and an intermediate support carried by the rear of the removable seat-cushion and located out of line with the rear portion of the horizontal supporting-surface of the seat-frame, whereby the upper edge of the seat is tilted, but adapted when the seat is drawn out to rest upon the front portion of the seat-frame and elevate the rear of the seat-cushion to bring the upper face thereof in a horizontal plane.

2. A removable seat-cushion B, distinct and separate from its supporting-frame, having its front portion of greater thickness than its rear and carrying upon its under surface adjacent to the rear thereof and at a distance from the side edge an inclined projection E.

3. In a car-seat, the combination of a stationary seat-frame having a horizontal guiding-surface provided with projections adjacent to its front portion, a movable seat-cushion adapted to be moved over said horizontal guiding-surface of the stationary seat-frame, having a greater thickness at its front than at its rear portion and provided upon its under surface with projections located out of line with the rear portion of the horizontal guiding-frame, but in line with the projections adjacent to the front portion thereof and adapted to rest upon said projections when the seat-cushion is moved forward, thereby elevating the rear portion of the seat-cushion and bringing the upper surface thereof in a horizontal plane.

4. In a railway-car seat, the combination of the main frames A A, of two facing car-seats having horizontal guiding-faces, the projections K, carried by the main frames A A, adjacent to the horizontal guiding-faces thereof, the removable supporting-rails H, adapted to be arranged between the front edges of the frames A A, and the seat-cushions B B, separate and removable from the frames A A, each having a greater thickness at its front than at its rear end, provided upon their under surfaces adjacent to the rear thereof with projections E.

5. In a car-seat, the combination of a fixed horizontal supporting-frame, a seat-cushion movable upon said horizontal supporting-frame, having a greater depth at its front than at its rear portion, a support adjacent to said supporting-frame and a distance from the rear thereof, and a projection carried by the under surface of the seat-cushion, having a depth equal to the height of the rear end of the under surface of the seat-cushion above said support when the upper surface of the seat-cushion is on a level or horizontal plane, whereby said seat-cushion will have its front edge raised above its rear edge when the seat-cushion is pushed back and will have its rear tilted so as to bring its upper surface on a level when it is drawn out.

In testimony of which invention I have hereunto set my hand.

HENRY S. HALE.

Witnesses:
R. M. HUNTER,
GEO. W. REED.