

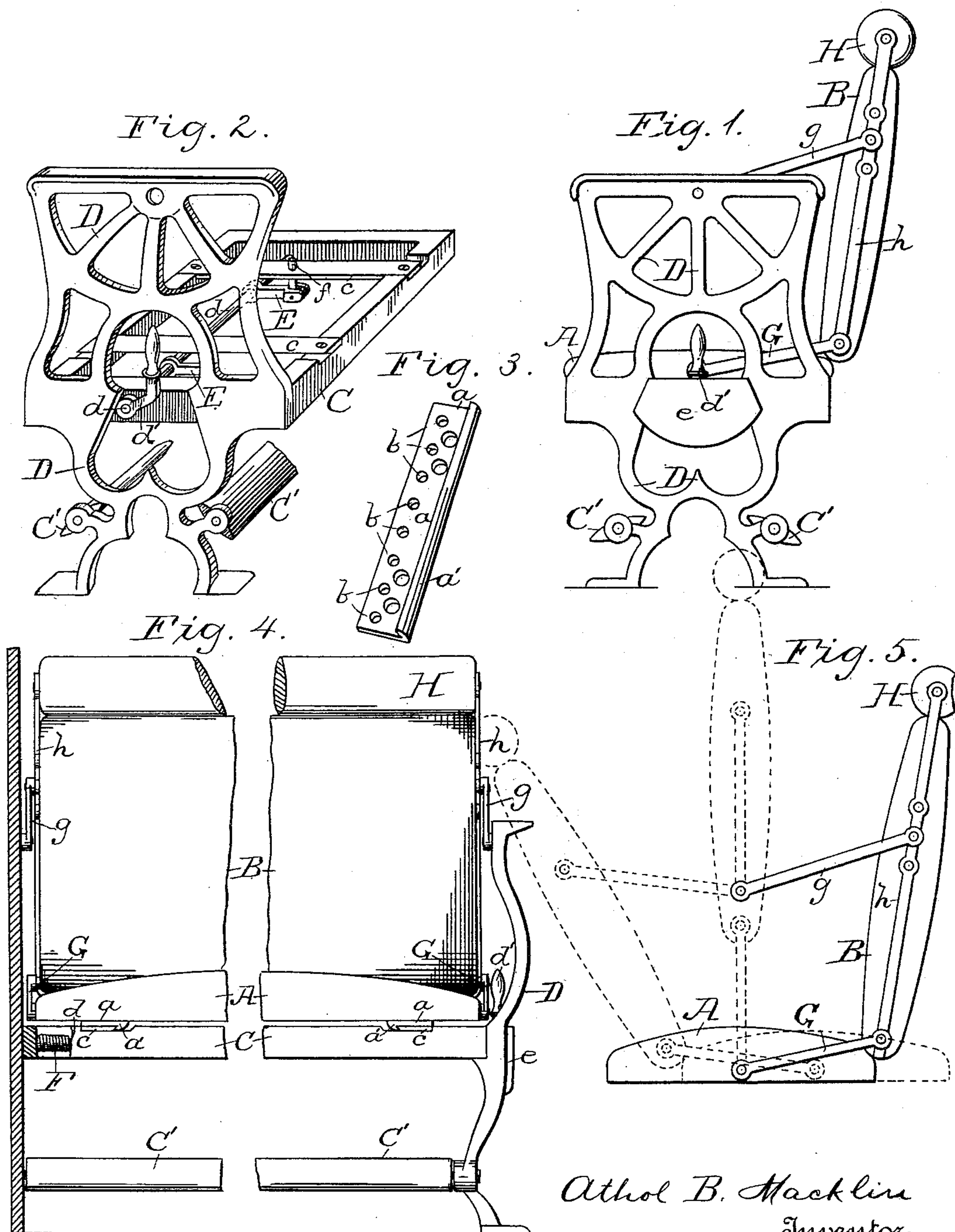
(No Model.)

A. B. MACKLIN.

CAR SEAT.

No. 407,022.

Patented July 16, 1889.



Athol B. Macklin
Inventor.

Witnesses

Diana Thomason
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UNITED STATES PATENT OFFICE.

ATHOL B. MACKLIN, OF TORONTO, ONTARIO, CANADA, ASSIGNOR, BY
DIRECT AND MESNE ASSIGNMENTS, TO THE MACKLIN ADJUSTABLE
CAR SEAT COMPANY, OF CHICAGO, ILLINOIS.

CAR-SEAT.

SPECIFICATION forming part of Letters Patent No. 407,022, dated July 16, 1889.

Application filed June 16, 1888. Serial No. 277,344. (No model.)

To all whom it may concern:

Be it known that I, ATHOL B. MACKLIN, of Toronto, in the county of York, in the Province of Ontario, Canada, have invented certain new and useful Improvements in Car-Seats, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, and to the letters of reference marked thereon, and forming a part of the same.

The object of my invention is to provide a car-seat the seat-cushion of which can be adjusted transversely, and the back of which can be automatically inclined to the plane of said seat-cushion, according to the adjustment thereof, so as to afford the greatest ease and comfort for almost any sitting or reclining posture it is desired to place the body in, substantially as hereinafter fully described, and as illustrated in the drawings, in which—

Figure 1 is a side elevation of my improved car-seat. Fig. 2 is a perspective view of the same with the seat and back removed. Fig. 3 is a detail view. Fig. 4 is a front elevation; and Fig. 5 is a diagram of the seat and back, showing in dotted lines the different positions of the same.

Reference being had to the drawings, A represents the transversely-adjustable seat-cushion, and B represents the back of my improved seat. Secured transversely to the under side of said seat are two plates *a a*, which have downwardly-projecting flanges *a'* along their inner side edges, and which are provided with longitudinal series of holes *b*, near and parallel with the edge opposite said flanges *a'*. The inner walls of these flanges *a'* are inversely beveled, and the plates *a*, of which said flanges form a part, rest upon the guide-plates *c c*, which are secured transversely to and bridge over the space between the side pieces of the rectangular frame C. The width of plates *c* and their location with reference to plates *a* is such that the flanges of the latter depend down in front of the beveled edges of the former and engage therewith, so as to prevent any vertical or longitudinal displacement thereof. Plates *a a* and *c c* are arranged as shown in Fig. 4, and per-

mit only a transverse movement of the seat-cushion.

The rectangular frame C is secured, preferably, to the wall of the car at one end, and is secured to and supported by the side frame D at its other end. That part of the side frame above the plane of the seat-cushion forms an arm-rest, and below the seat the frame is so designed that there are bearings for foot-rests *C' C'*.

In order to maintain the seat in any transverse position within the limits of its movement, to which it may be adjusted, I journal in the ends of the rectangular frame D a rock-shaft *d*, the end of which nearest the frame D extends through its bearings and has an L-shaped handle *d'* on it, the end of which rises vertically at about the center of the frame to a point above the plane of the seat-cushion, so that it can be easily reached and grasped by the occupant. The side frame is cut away or made open about its center of length, so as to accommodate the handle *d'*, and a shield *e* is secured over the opening in said frame to protect it. Immediately under, and projecting from said rock-shaft parallel with plates *c c* toward, and preferably to the transverse center of the frame D, are arms *E E*, which have pivoted to or in their ends the vertical bolts *f f*. These bolts rise vertically through suitable openings in about the center of length of plates *c c* into one of the series of holes *b* in plate *a*.

Surrounding, preferably, the inner end of shaft *d*, between its bearing and the arm *E* nearest thereto, is a torsion-spring *F*, as shown in Fig. 4, the effect of which is to keep the bolts always pushing upward. Thus when it is desired to adjust the seat transversely, the handle *d'* is oscillated downward, so as to rock the shaft *d*, and through it withdraw the bolts *f f* from the holes in series *b b*. When the seat has been adjusted to the desired position, the pressure is released from handle *d'*, whereupon the bolts *f f* shoot up into the holes in plate *a* in register therewith and lock the seat in such adjusted position.

At a suitable point in the side frame, and at a corresponding point in the wall of the car

above the plane of the seat-cushion, intersected by a vertical plane striking through the center of length of said side frame, are pivoted by suitable means the links *g g*. The
 5 other ends of these links are pivotally connected to the vertical side edges of back B, about as shown in the drawings. The centers of length of the ends of said seat A are likewise connected by links *G G* at corresponding
 10 points to the vertical side edges of back B, near the bottom edge thereof. The respective lengths of these links *g* and *G* are such that the lower horizontal edge of the back rests upon and against the longitudinal edge of the
 15 seat-cushion. Thus it is apparent, particularly by referring to Fig. 5 of the drawings, that as said seat is adjusted in one direction or the other the back is inclined at a greater or less angle to the horizontal plane thereof.

20 Both sides of the back B are cushioned, and when it is desired to reverse the position of said back all that is necessary is to lift and swing it bodily to the other side of the seat.

I prefer to strengthen the vertical side edges
 25 of the back by metal strips *h*. If desired, these strips may extend above the upper edge of the back and have bearings in them for the journals of a cushioned head-rest H, as shown.

30 While I prefer the use of the devices shown and described for accomplishing the adjustment of seat A, yet any other set of devices for accomplishing the same results would answer just as well when in conjunction with
 35 the seat and back connected and operating together, as explained.

What I claim is—

1. The combination, with a transversely-movable car-seat and side frames, of the back,
 40 and links *g g*, connecting the side edges of said back to the said side frame above the plane of the seat, and links *G*, connecting the side edges of the back at a point near the lower edge thereof and said car-seat, as set
 45 forth.

2. The combination, with a transversely-

movable car-seat, back B thereof, links *g*, connecting said back to the seat-frame, and the links *G*, connecting the lower side edges of
 50 said back to said car-seat, of the said frame D, rectangular frame C, and the transverse guide-plates *c*, as set forth.

3. The combination, with a transversely-movable seat, transverse plates *a*, secured to its under side, having a flange projecting from
 55 one longitudinal edge thereof and provided with a longitudinal series of holes therein, back B, links *g*, connecting the said back to the seat-frame, and link *G*, connecting the lower side edges of said back to the car-seat,
 60 of said seat-frame D, rectangular frame C, supported by said seat-frame D, transverse plates *c*, placed across frame C with reference to plates *a* of the seat, rock-shaft *d*, journaled in the ends of frame C, arms E, projecting
 65 from shaft *d*, and bolts *f f*, pivoted in the ends of said arms and extending vertically up through plates *c* into one of the series of holes in plate *a*, as set forth.

4. The combination, with a transversely-
 70 movable seat, transverse plates *a*, secured to its under side, having a flange projecting from one longitudinal edge thereof and provided with a longitudinal series of holes therein, back B, links *g*, connecting the said back to
 75 the seat-frame, and links *G*, connecting the lower side edges of said back to the car-seat, of said seat-frame D, rectangular frame C, supported by said seat-frame D, transverse plates *c*, placed across frame C with reference
 80 to plates *a* of the seat, rock-shaft *d*, journaled in the ends of frame C, handle *d'*, projecting from one end thereof, arms E, projecting from shaft *d*, and bolts *f f*, pivoted in the ends of the said arms and extending vertically up
 85 through plates *c* into one of the series of holes in plate *a*, and a torsion-spring F, wound around shaft *d*, as set forth.

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Witnesses:

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