

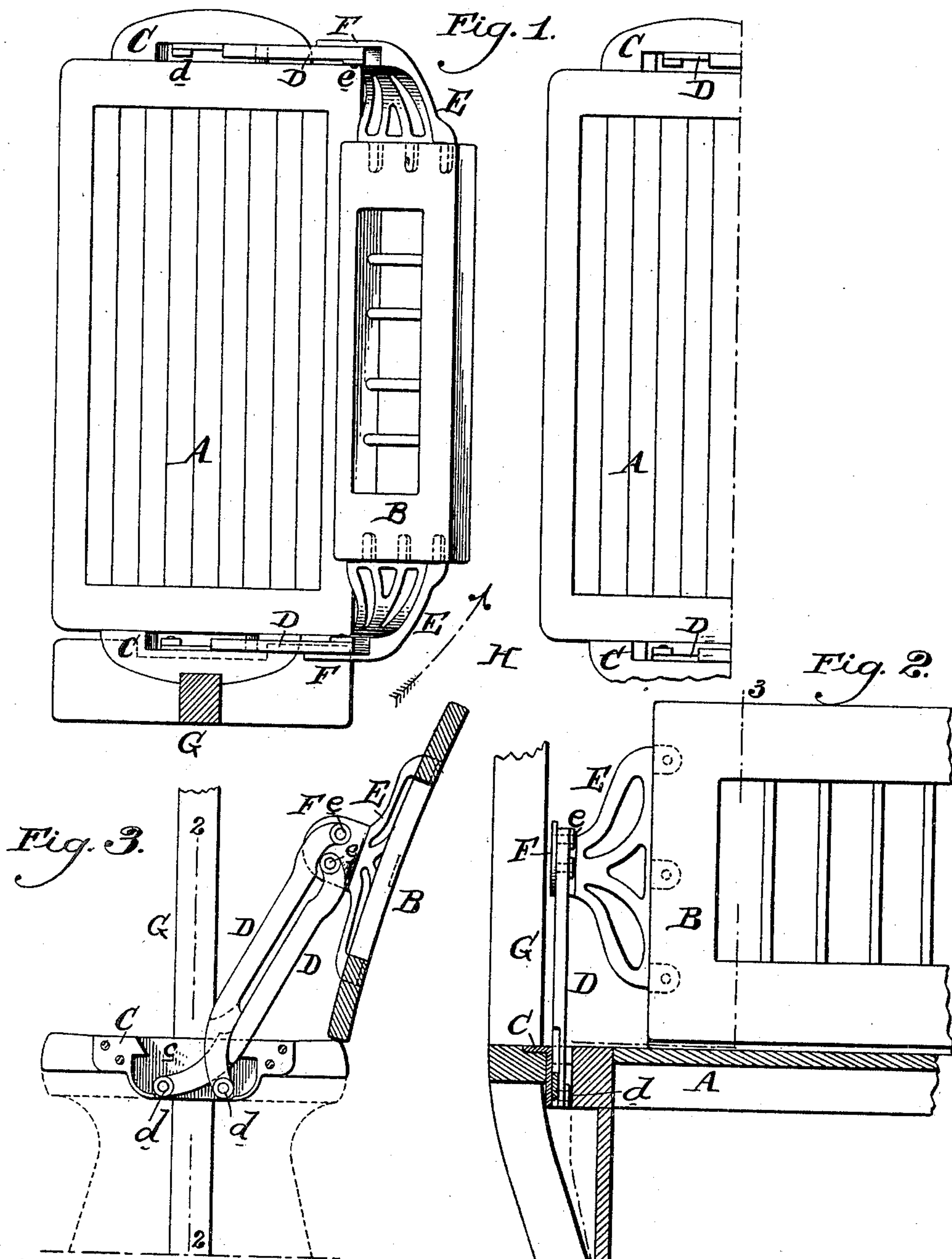
No. 681,784.

Patented Sept. 3, 1901.

H. S. HALE.
CAR SEAT.

(Application filed June 23, 1899.)

(No Model.)



Witnesses:
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UNITED STATES PATENT OFFICE.

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CAR-SEAT.

SPECIFICATION forming part of Letters Patent No. 681,784, dated September 3, 1901.

Application filed June 23, 1899. Serial No. 721,560. (No model.)

To all whom it may concern:

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

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

The object of my invention is to provide a suitable construction for a car-seat especially adapted to street-car work.

15 More particularly the object is to provide a suitable reversible construction of a car-seat which shall eliminate the objectionable feature of hinging the back to arms or supports at points above the seat and which shall at
20 the same time provide curved metal portions or brackets connecting the wooden back with the supporting-arms in such a manner as to leave the greatest possible space for entering between two adjacent seats either in getting
25 on or off the car at the side or in passing from or to the central aisle where double seats are employed. My improvements comprehend the hinging of the back to suitable supporting-
30 arms at each end of the seat by means of curved end brackets which are secured to the supporting-arms with provision for rotation about axes parallel to the length of the seat, and so
35 shaped as to extend backward and laterally inward to receive and support a back of considerably less length than the length of the seat between the pivoted connections of the supporting or hinge arms with the seat proper. By employing the curved bracket portions in
40 combination with the pivoted arms hinged at the lower parts to the ends of the seat and at the upper ends to the curved brackets I am enabled to secure in the same structure a large clearance over the end of the seat for
45 easy access thereto and free movement of the elbow and at the same time reduce to the greatest possible extent the obstruction at the rear of the back to the entrance-way into the seat next to the rear, which is a feature of the greatest importance in small cars, such as
50 street-cars, where with great carrying capacity space is of the greatest importance for the

convenience of the passengers to move in and out of the car quickly.

My improvement will be better understood by reference to the accompanying drawings, 55
in which—

Figure 1 is a plan view showing one complete car-seat and the forward part of the next car-seat in the rear. Fig. 2 is a transverse section of same on line 2 2 of Fig. 3, and 60
Fig. 3 is a cross-section of same on line 3 3 of Fig. 2.

A represents the car-seats, which are usually fixed or rigid.

B represents the seat-back, which is rigidly 65
secured at each end to the brackets E E, of metal, which extend considerably outward and forward to form a curved end portion, which is the direct means for sustaining the
70 said back from the hinge-arms D and in connection with which it works for reversing the seat-back. The end brackets E have flanged portions F on their outer ends arranged at right angles to the plane of the back, and to
75 these are pivoted at *e* the upper ends of the hinge-arms D D. The lower ends of these arms D D cross each other and are pivoted at *d* to a base-piece C, having a recessed portion *c*, in which the lower ends of the arms D
80 move. These arms D act as the hinge-arms for the seat-back and are adapted to swing into inclined positions, such as indicated in Fig. 3, so as to leave the greatest possible
85 space above the seat at the end clear or unobstructed. The base-plates C are preferably fastened directly to the ends of the seat A, so as to be rigid therewith, and they are
90 furthermore provided with suitable stops to receive the arms to limit the movement thereof in the act of reversing. The back B is in this manner pivoted upon the upper ends of
95 the arms D, and in reversing the said back it is turned completely over upon the pivots *e* and at the same time so acts upon the hinge-arms as to cause them to shift their position and
take the opposite obliquity.

In Fig. 1 the arrangement of the seats is shown as if there was a central aisle—that is to say, the seats are shown as being of short
100 length, with the outer parts G of the car-body shown at the lower portion; but it is to be understood that these seats may, if desired,

extend entirely across the car, as in such cases the principle of construction will be identically the same.

While I have shown the double arms acting in pairs as the hinge-arms, it is to be understood that I do not confine myself to any particular character of hinge-arms, as said arms may be formed of a single piece, if so desired, in any of the well-known manners.

By my construction herein set out, in which I combine the curved laterally - extending bracket portions E, hinged to the upper end of the hinge-arms and being the direct means of support for a seat-back of considerably shorter length than the seat proper, I secure the great clearance-spaces so important to ready entrance and egress to and from the seats and at the same time secure a comfortable curved portion at the end of the seat-back to receive the back of the person occupying the seat and an unobstructed space for the elbow to pass beyond the seat-back and its connections, thereby giving great comfort while maintaining available the greatest possible portion of the seat.

While I prefer the construction shown as being excellently adapted to the purpose of my invention, I do not limit myself to the minor details thereof, as they may be modified in various ways without departing from the principles of the invention.

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 the seat proper, hinge-arms directly pivoted to the

ends of the seat and adapted to occupy oblique positions a seat-back of considerably less length than the seat proper, and end brackets rigidly connected to the ends of the seat-back and extended outward and forward and hinged or jointed to the upper free ends of the hinge-arms.

2. In a car-seat the combination of a seat proper, two base-plates arranged one at each end of the seat, suitable hinge-arms pivoted to said base-plates and adapted to assume oblique positions, a seat-back of considerably less length than the seat proper, and connecting curved bracket portions rigidly secured at each end of the seat-back and extended outward and forward and pivoted to the upper or free ends of the hinge-arms so as to rotate about axes parallel to the length of the seat-back.

3. In a car-seat the combination of a seat proper, a base-plate C at each end, hinge-arms at each end comprising the two arms D D crossed and pivoted at the bottom at *d d* to the base-plates, a seat-back B of less length than the seat A, and end brackets E E secured to the said seat-back at each end and extended outwardly and forward and terminating in plates F F which are pivoted at points *e e* to the upper or free ends of the hinge-arms D D.

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

HENRY S. HALE.

Witnesses:

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