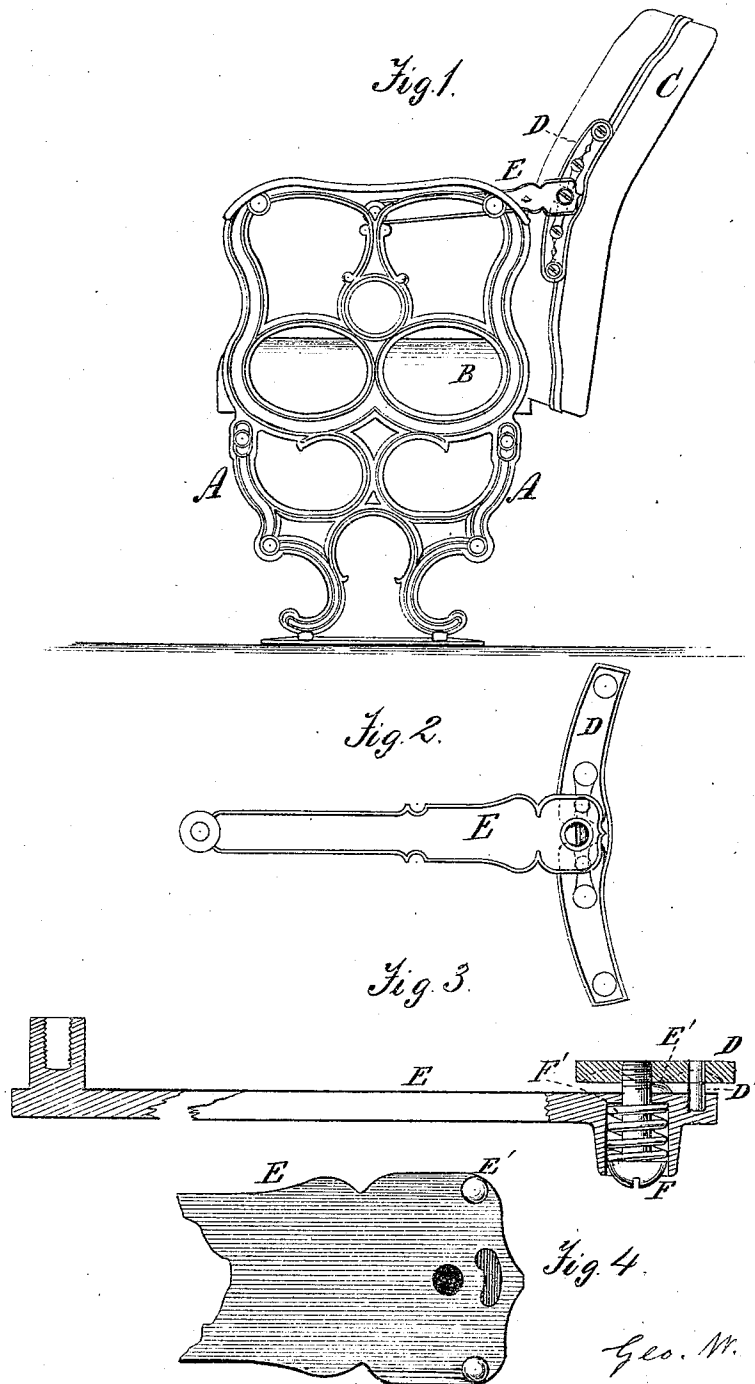


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Improvement in Hinged Joints for Car Seats.

No. 123,417.

Patented Feb. 6, 1872.



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GEORGE W. PERRY, OF WILMINGTON, DELAWARE.

IMPROVEMENT IN HINGED JOINTS FOR CAR-SEATS.

Specification forming part of Letters Patent No. 123,417, dated February 6, 1872.

Specification describing a certain Improvement in Hinged Joints for Car-Seats, invented by GEORGE W. PERRY, of Wilmington, in the county of New Castle and State of Delaware.

This invention relates to that class of devices which are used to connect the back of a car-seat to the frames thereof, and which may be termed a hinge-joint; and it consists in the construction, combination, and arrangement of the parts of which it is composed, as will be more fully explained hereinafter.

Figure 1 is an end view of a car-seat having my improved joint attached thereto. Fig. 2 is a side view of the arm, which is attached to the end frame of the seats, and of a plate which is attached to the swinging back. Fig. 3 is a side view of the parts shown in Fig. 2, showing the pin or stop which regulates the range of movement of the swinging back of the car-seat, the bolt which unites the plate upon the back of the arm which is attached to the frame, and a spring which regulates the friction between the two. Fig. 4 is a rear or inside view of a portion of the arm, showing the slot in which the stop-pin works.

Corresponding letters refer to corresponding parts in all the figures.

In constructing seats for railroad-cars, theaters, lecture-rooms, and other places where the occupant is likely to be required to sit for a considerable length of time without rising, it is desirable that the backs of such seats should be so constructed and arranged that their position may be changed, so that the occupant may sit with his body in an upright or in an inclined position, and that the back may be set and held at any angle which at the time will give the greatest ease to the occupant.

In putting my invention into practice I use any suitable frame, A, for the support of the inner end of the seat, its outer end being held upon a smaller frame when necessary; or it may be supported upon a cleat attached upon the side of the car when used in one. Upon transverse bars, which are attached to these frames, cushions B, of any suitable form and material, are placed. The above-described parts do not form any part of my invention, and consequently need not be more particularly described. The back C of the seat, for the purpose of causing it to conform as much as

possible to the contour of the occupant when in a sitting position, should be substantially such as shown in Fig. 1 of the drawing. Its form, however, may be varied, if desired. To the ends of this portion of the seat plates of metal, D, are secured, the form being that of a segment of a circle, or such as to cause them to conform to the ends of the back of the seat. The outer surfaces of these plates may be ornamental or plain, as desired, while at their centers they are provided with a hole, in which there is formed a screw-thread for the reception of a bolt which forms the pivot upon which the back of the seat swings. On a line horizontal with the bolt which passes through this plate there is affixed a pin, D', which projects from its outer surface far enough to pass through or enter cavity in the end of swinging lever or arm E, for a purpose soon to be described. In addition to the pin above referred to, the outer surface of this plate is provided with two rounded projections, which extend from its central part outward for a distance sufficient to enable them to come in contact with projections upon the arm E, and thus hold it in the position to which it may have been brought by the movements of the occupant. Pivoted to the frame or frames A there is a swinging lever or arm, E, which serves the purpose of allowing the swinging back of the seat to be changed to the opposite side of the frame when the direction of the car is changed, and which also serves to control the movements of the back of the seat upon its pivot. That end of this arm which is pivoted to the frame is provided with a projection, which enters a slot in such frames, where it is held by a screw or other suitable device. From this point it extends outward far enough to cause the inside of the cushioned back of the seat to come in contact with the edge of the cushion B when the parts are in the position shown in Fig. 1 of the drawing. The outer end of this arm is provided with a socket for the reception of a spring, F', and a bolt-head, F, as shown in Fig. 2, and upon its inner surface with two projections, E', which bear upon the rounded projections of the plate D. It is also provided with a slot or groove, as shown in Fig. 4, for the reception of the pin D', said slot being of such construction as to give the required movement to the back of the seat upon

its pivot, and in connection with the pin, to form a stop for the same, so that it can only turn a certain regulated distance thereon.

It will be seen that when the parts are in the position shown in Figs. 2 and 3 the back of the seat is in a nearly vertical position, and that the projections upon the inner surface of the arm F will bear against the highest surface of the projections on the plate D, the contact being maintained by the force of the spring F', which is regulated by the bolt F. If the occupant desires to change the position of the back of the seat it is only necessary to press with the portion of the body which is in contact with it either upon the upper or lower portion of it, and it will be made to assume the position desired within the range of its movement, and it will be retained in such position by the action of the spring, as above described.

What I claim as my invention, and desire to secure by Letters Patent, is—

In combination with the back of a car or other seat, a plate of metal, having in or upon it a stop for controlling the movements of said back upon its pivot, an arm or lever for connecting the back to the frame, said arm or lever being provided with a socket for the reception of a spring, and with projections or equivalent devices for determining the position of the back of the seat with reference to its pivoted point, and a spring for causing and regulating the contact between the arm and plate, substantially as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

G. W. PERRY.

Witnesses:

THOS. M. CULBERT,
SAML. CULBERT.