No. 657,490. Patented Sept. 4, 1900.

D. M. HOUSTON.

CAR SEAT.

(Application filed Apr. 25, 1900.)

(No Model.)

Fig. 1.

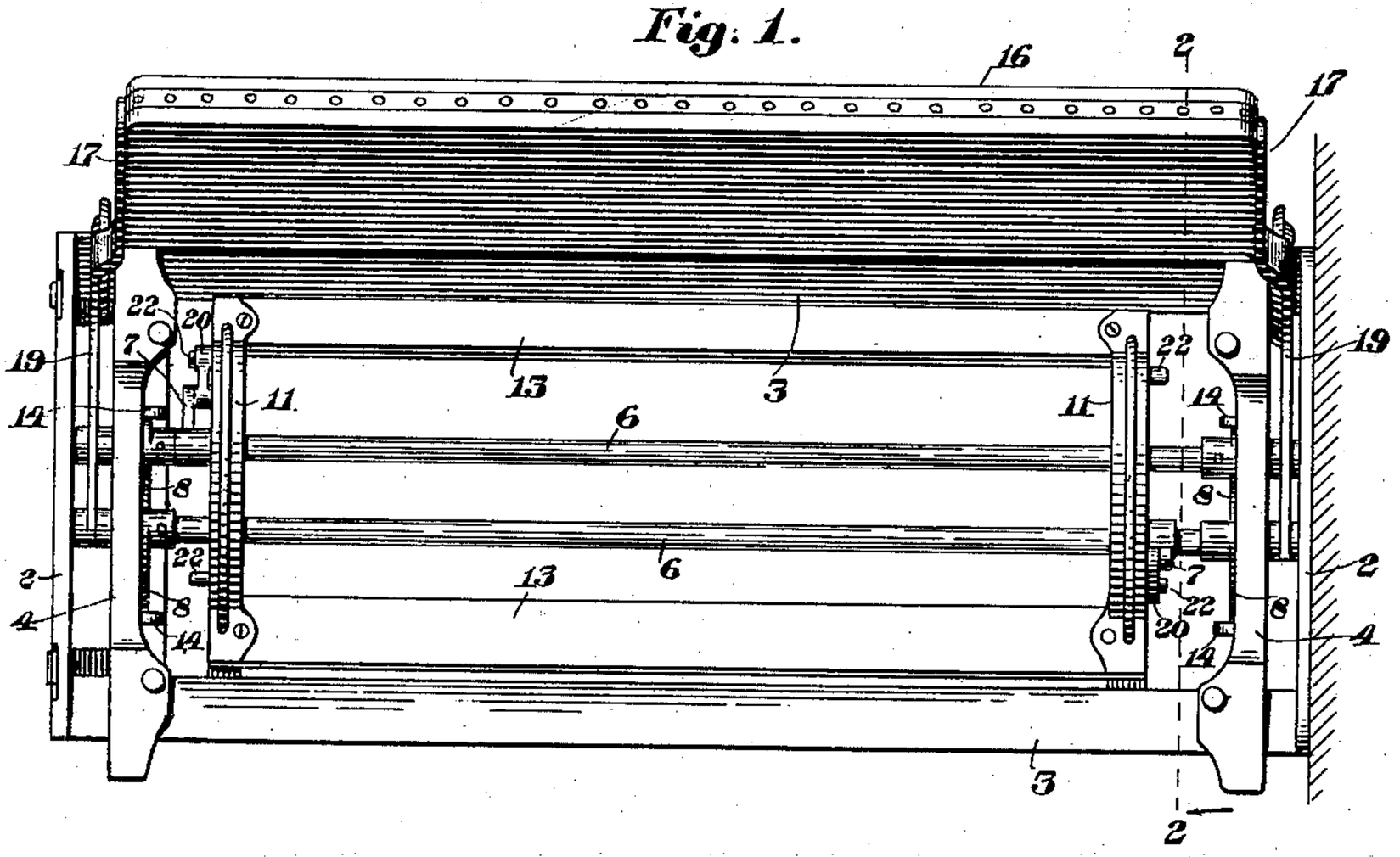
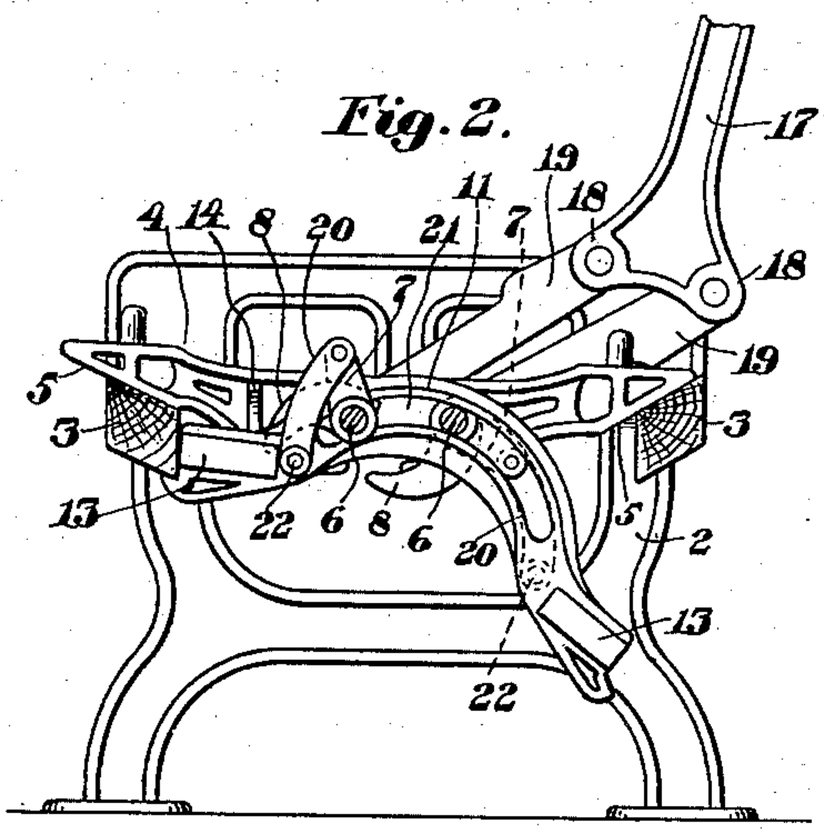


Fig. 2.



Witnesses:
Walter E. Dowland
E. Batchelder

Inventor:
D. M. Houston
by Wright Brown & Quinby.
Attys.

UNITED STATES PATENT OFFICE.

DONALD M. HOUSTON, OF WAKEFIELD, MASSACHUSETTS, ASSIGNOR TO THE HEYWOOD BROTHERS & WAKEFIELD COMPANY, OF SAME PLACE.

CAR-SEAT.

SPECIFICATION forming part of Letters Patent No. 657,490, dated September 4, 1900.

Application filed April 25, 1900. Serial No. 14,237. (No model.)

To all whom it may concern:

Be it known that I, DONALD M. HOUSTON, of Wakefield, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Car-Seats, of which the following is a specification.

This invention relates to a car-seat having a reversible or swinging back, a foot-rest frame which is reversible with the back, and a seat which is also reversible, in that its transverse inclination can be varied to raise that edge which is at the front and depress the edge which is at the rear.

The invention has for its object to provide simple and efficient means whereby the reversal of the back causes also a reversal of the position of the foot-rest frame and seat.

The invention consists in the improvements which I will now proceed to describe and claim.

Of the accompanying drawings, forming a part of this specification, Figure 1 represents a top plan view of a car-seat embodying my invention, the seat-cushion being removed. Fig. 2 represents a section on line 2 2 of Fig. 1.

The same reference characters indicate the same parts in both of the figures.

The rigid supporting-frame of the seat comprises the two end pieces 2 2 and the connecting-bars 3 3, the upper sides of the connecting-bars being inclined to form guides for the seat-supporting slides 4 4, the latter having inclines 5 5 on the under sides of their end portions bearing on the inclined upper surfaces of the bars 3.

6 6 represent rock-shafts which are journaled in bearings on the end pieces 2 2 of the seat-frame. To said rock-shafts are affixed arms 7 7 and cams 8 8. The outer ends of the arms are connected by links 20 20 with studs 22, inserted in or otherwise affixed to the segmental cross-bars 11 11, which, with the parallel foot-rests 13 13, constitute the reversible foot-rest frame. The segmental cross-bars 11 are provided with segmental slots 21, through which the rock-shafts 6 6 pass, said slots being longer than the space between the outer sides of the rock-shafts, so that the foot-rest frame has an edgewise sliding motion on the rock-shafts, the segmental form of the slots 21 causing this motion to elevate one of the foot-rests 3 and depress the other, as will be understood by Fig. 2. The cams 8 8 bear against lugs 14 14, formed on the seat-supporting slides 4. The arms 7 and cams 8 of one rock-shaft project at a different angle from the arms 7 and cams 8 of the other rock-shaft, as shown in Fig. 2, the relative arrangement being such that when the arm and cam of one rock-shaft are raised the arm and cam of the other rock-shaft are depressed, thus causing the arms 7 7 and links 20 to act conjointly in holding the foot-rest frame in an inclined position and the cams 8 8 to act conjointly in holding the seat-supporting slides 4 at one end of their movement.

16 represents the seat-back, to the ends of which are affixed metal arms 17, the lower ends of which are provided with ears 18 18. To said ears are jointed two parallel links 19 19, the lower ends of which are secured rigidly to the rock-shafts 6 6.

It will be seen that when the back is moved from the position shown in Figs. 1 and 2 to the opposite position the inclination of the links 19 will be changed, causing a partial rotation of the rock-shafts, reversing the position of the foot-rest frame and the inclination of the seat-supporting slides.

The segmental form of the cross-bars of the foot-rest frame and their adaptation to slide upon the rock-shafts 6 6 provide for an adequate baggage-receiving space between each cross-bar and the floor of the car, the connecting devices between the rock-shafts and the cross-bars being entirely above the lower edges of the cross-bars, so that there is no mechanism projecting below the cross-bars. This arrangement provides a very convenient space under the seat for the storage of hand-baggage, &c.

In Fig. 1 I have omitted one of the arms 7 and the accompanying link 20 from each rock-shaft.

I claim—

1. In a car-seat, a seat-frame, two rock-shafts journaled in fixed bearings in the seat-frame and each having two rigidly-attached arms, a foot-rest frame comprising parallel foot-rests and segmental rest-connecting cross-bars having segmental slots through which the rock-shafts pass, the foot-rest frame

being movable on and guided by the two rock-shafts, links connecting the arms of the rock-shafts with the foot-rest frame, a reversible back, and parallel links jointed to the back and rigidly attached to the rock-shafts, the arms of one rock-shaft being so arranged relatively to the arms of the other rock-shaft that when the position of the back is reversed the arms of one rock-shaft are depressed, while those of the other rock-shaft are raised, whereby a reversal of the position of the back causes a reversal of the position of the foot-rest frame, as set forth.

2. In a car-seat, a seat-frame, two rock-shafts journaled in fixed bearings in the seat-frame, a foot-rest frame comprising parallel foot-rests and segmental rest-connecting cross-bars having segmental slots through which the rock-shafts pass, the foot-rest frame being movable on and guided by the rock-shafts, a reversible seat-back, parallel links jointed to the back and rigidly attached to the rock-shafts, and connections between the rock-shafts and the foot-rest frame, whereby a reversal of the position of the back causes also a reversal of the position of the seat-frame, said connections being above the under sides of the segmental cross-bars, and the said cross-bars being arranged with their concave sides downward, whereby baggage-receiving spaces are formed between the ends of the seat-frame and the floor of the car.

In testimony whereof I have affixed my signature in presence of two witnesses.

DONALD M. HOUSTON.

Witnesses:

C. W. H. FREDERICK,

C. F. BROWN.