

No. 724,610.

PATENTED APR. 7, 1903.

C. K. PICKLES.
CAR SEAT.

APPLICATION FILED JULY 28, 1902.

NO MODEL.

Fig. 1.

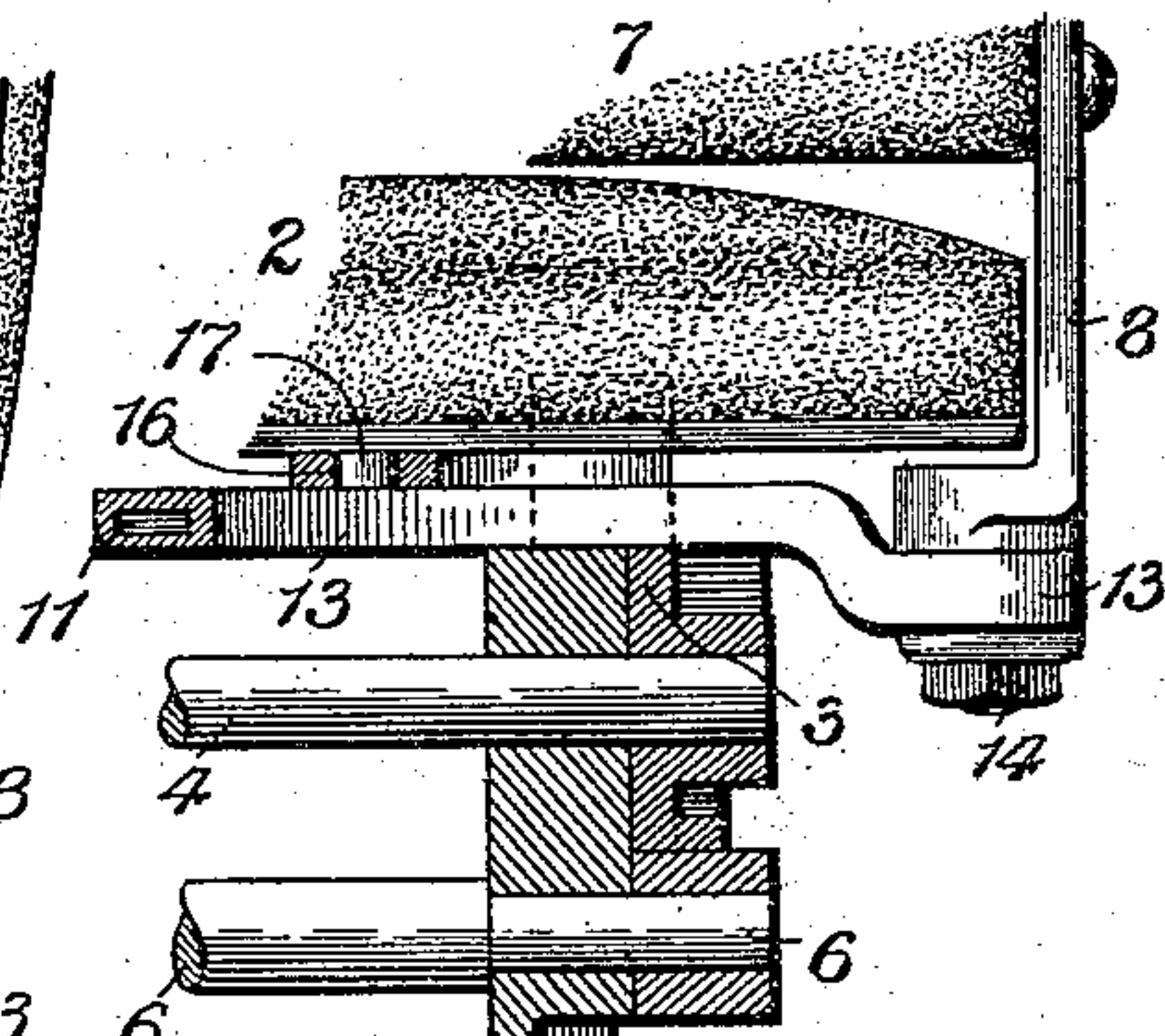
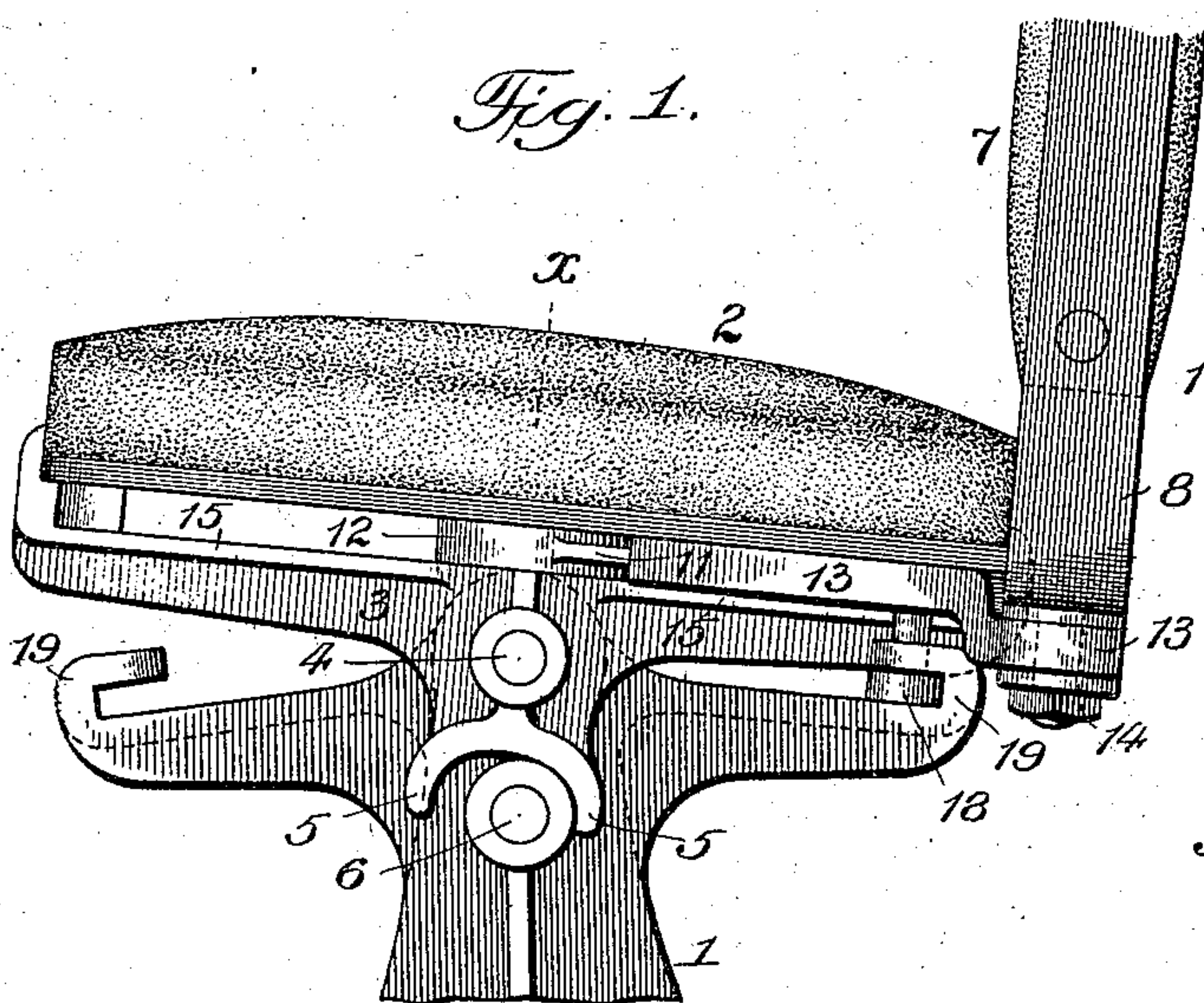


Fig. 2.

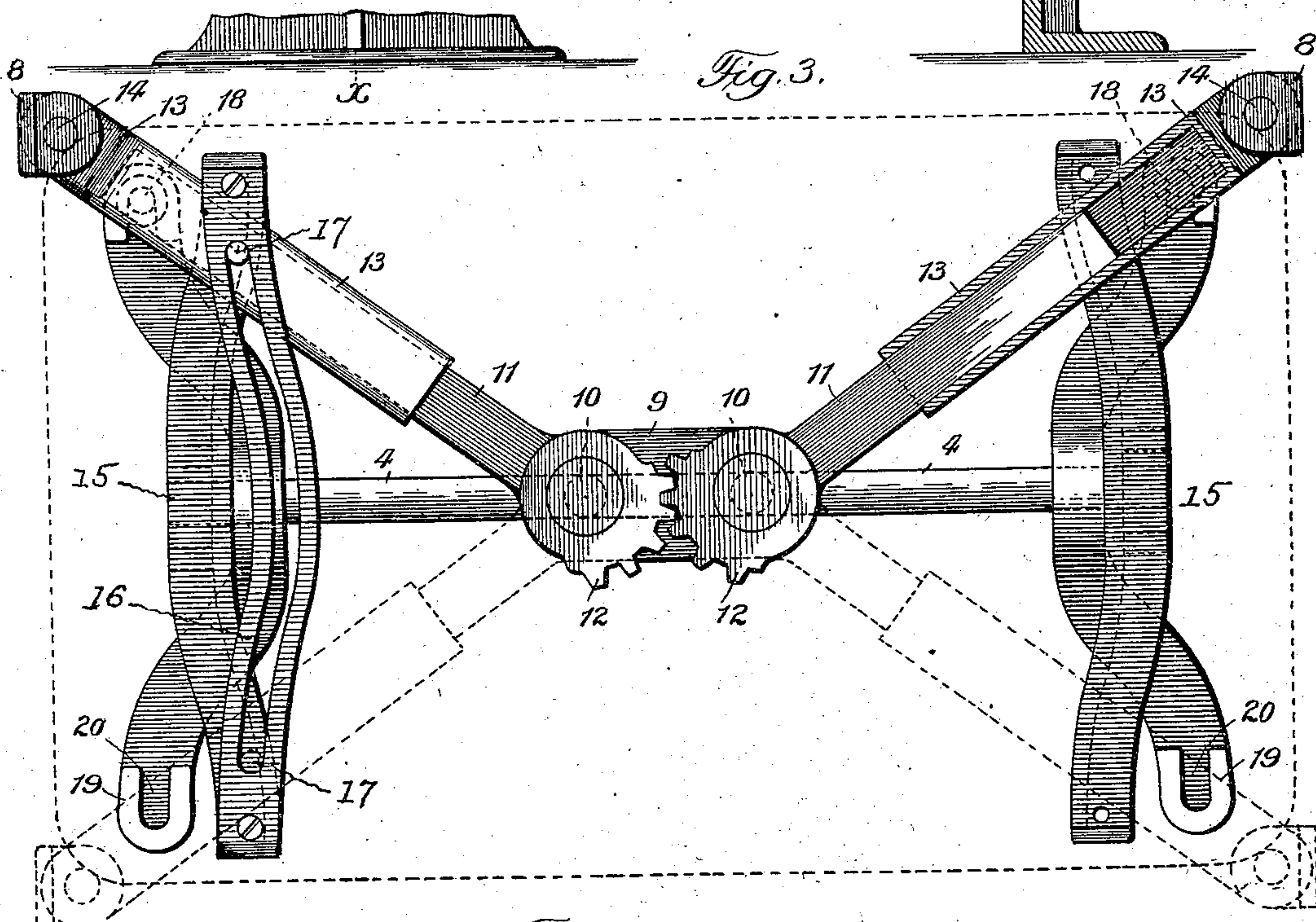


Fig. 3.

Fig. 4.

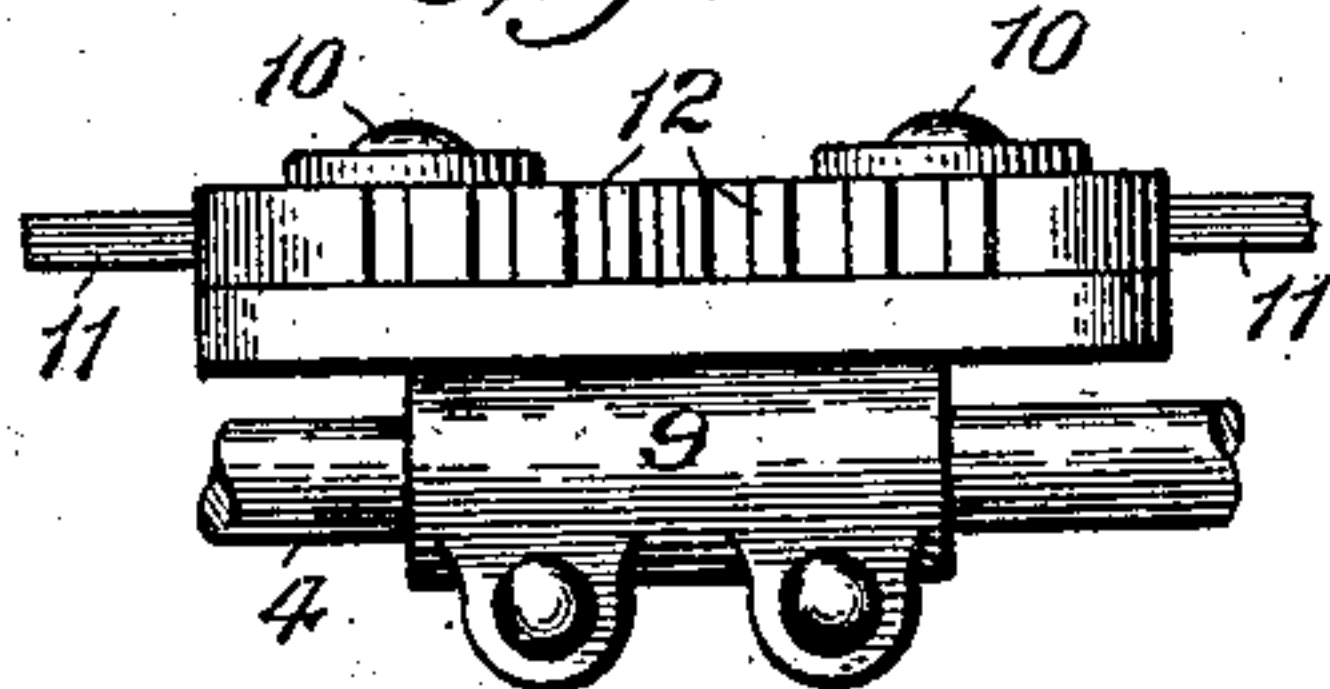
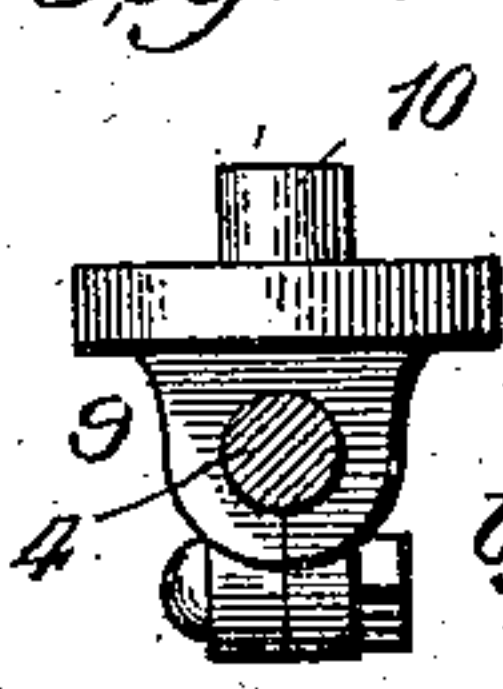


Fig. 5.



Attest:

John Enders Jr.
M. H. Holmes

Inventor:

Charles K. Pickles,
by Robert Burns
Attorney.

UNITED STATES PATENT OFFICE.

CHARLES K. PICKLES, OF ST. LOUIS, MISSOURI, ASSIGNOR TO SANFORD G. SCARRETT, OF ST. LOUIS, MISSOURI.

CAR-SEAT.

SPECIFICATION forming part of Letters Patent No. 724,610, dated April 7, 1903.

Application filed July 28, 1902. Serial No. 117,252. (No model.)

To all whom it may concern:

Be it known that I, CHARLES K. PICKLES, a citizen of the United States of America, and a resident of the city of St. Louis and State of Missouri, have invented certain new and useful Improvements in Car-Seats, of which the following is a specification.

This invention relates to that class of car seats or chairs in which the chair-back is made reversible; and the object of the present improvement is to provide a simple, durable, and efficient construction and arrangement of the connecting mechanism between the reversible chair-back and the stationary chair base or standard and in which such connecting mechanism has an arrangement and location wholly beneath the chair-seat proper without any projections beyond the same other than the single end-connecting ears by which attachment is had with the respective lower corners of the chair-back, such construction and arrangement affording within a given space within a car a maximum amount of seating-surface and, what is of equal if not greater importance, a free and unobstructed end access for the user to such seating-surface, all as will hereinafter more fully appear and be more particularly pointed out in the claims.

In the accompanying drawings, illustrative of the present invention, Figure 1 is an end elevation of a car seat or chair embodying the present improvements; Fig. 2, a fragmentary longitudinal section at line *xx*, Fig. 1, of one end of the car seat or chair; Fig. 3, a plan view with the chair-seat removed and illustrating the connecting mechanism between the chair base and back, the vertical attaching side ears or plates and one of the telescoping arms being shown in section; Fig. 4, a fragmentary elevation of the central portion of the connecting mechanism; Fig. 5, a detail end elevation of the same.

Similar numerals of reference indicate like parts in the different views.

Referring to the drawings, 1 represents the stationary supporting base or standard of the car seat or chair of any usual and suitable form.

2 is the seat proper of any usual form and construction and which preferably rests in

its supporting metallic frame 3, which in turn is supported in any usual manner on the base or standard 1, either by the usual inclined tracks or by having a pivotal or rocking attachment thereto, as shown in Fig. 1, and in which the pivotal movement is had by means of the longitudinal tie-rod 4 passing through adjacent pivot-hubs on the respective parts and the rocking movement confined within the prescribed limits by separated ears 5 on the seat-frame adapted to have limited movement with relation to hubs on the main base, in which the secondary tie-rod 6 of such base is securely fastened.

7 is the chair or seat back of any usual form and which in the present construction is provided with depending extensions or bars 8 at its respective lower corners for attachment to the carrying or supporting mechanism hereinafter described.

9 is a pivot-block secured centrally upon the main base 1 in any usual manner, preferably by being clamped onto the longitudinal tie-rod 4 of such main base.

10 10 are companion pivot-studs having separated relation on the upper surface of the pivot-block 9.

11 11 are horizontally-arranged counterpart arms journaled by suitable journal-eyes at their ends upon the pivot-studs 10 10 aforesaid, and such ends are operatively connected together to move in unison by toothed sector formations 12 12 on the respective parts or by any other usual and equivalent means of connection.

13 13 are extensions of the arms 11 11 and are connected thereto to permit of a sliding or telescoping movement of the one upon the other in the practical operation of the mechanism. A very simple sliding attachment of the parts is illustrated in Fig. 3 of the drawings, in which one part is shown as having a tubular form, in the bore of which the straight shank of the other part is adapted to have sliding movement in a direct manner and without any lateral play.

14 represents vertical bolts affording a substantial connection between the outer ends of the extensions 11 aforesaid and the depending extensions or bars 7 of the chair-back and in a manner to permit of the oscillation of such

extensions in a horizontal plane in the operation of effecting a reversal of the chair-back.

15 represents horizontal track-bars forming a fixed part of the end portions of the seat-carrying frame 3 and affording substantial supports for the outer ends of the pair of counterpart arms heretofore described and the chair-back 7, carried by the same.

16 represents cam-slots or grooves formed in the end portions of the seat-carrying frame 3 or in separate plates fixedly attached thereto.

17 represents studs or projections on the extensions 13 of the arms 11, adapted for engagement with the cam-slots 16, as shown, the arrangement and formation of parts being such that with a vibration of the arms 11 from one edge of the seat to the other the outer ends thereof will be caused to move in rectilinear paths parallel with the respective ends of the seat.

18 represents depending headed studs on the under surface of the extensions 13 of the arms 11, but which may be located upon any adjacent part of the mechanism having movement in unison with said arm extensions.

19 represents fixed horizontal webs or projections upon the stationary base 1 or other like fixed part of the chair or seat of the car and which are located in separated relation at the respective limit of the movements of the outer parts of the carrying-arms 11 and adapted to have holding engagement therewith, so as to hold the seat-frame, seat portion, &c., at the proper degree of inclination after a reversal of the chair-back has been effected. To this end the said webs or projections are provided with open-ended slots 20, as shown in Fig. 3, into which the shank portions of the headed studs 18 enter, with the heads thereof beneath the body portion of said web, to attain a positive engagement of the parts and a consequent locking of the chair-seat at the desired degree of inclination.

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

1. The combination in a car-seat, of a seat, a supporting-standard, a back, a pair of back-supporting arms arranged horizontally beneath the seat and connected at their outer ends to the back, and means for imposing uniform movement on said arms, substantially as set forth.

2. The combination in a car-seat, of a seat, a supporting-standard, a back, a pair of back-supporting arms arranged horizontally beneath the seat and connected at their outer ends to the back, means for imposing uniform movement on said arms, and means for imposing rectilinear movement on the outer ends of said arms, substantially as set forth.

3. The combination in a car-seat, of a seat, a supporting-standard, a back, a pair of back-supporting arms arranged horizontally beneath the seat and connected at their outer ends to the back, pivotal connections be-

tween the adjacent ends of the arms and the standard, and means for imposing uniform movement on said arms, the same comprising intermeshing toothed gears on the pivot ends of said arms, substantially as set forth.

4. The combination in a car-seat, of a seat, a supporting-standard, a back, a pair of back-supporting arms arranged horizontally beneath the seat and connected at their outer ends to the back, means for imposing uniform movement on said arms, and means for imposing rectilinear movement on the outer ends of said arms the same comprising fixed cam-plates, a telescoping formation of said arms, and engaging connections between the outer ends of said arms and the cam-plates, substantially as set forth.

5. The combination in a car-seat, of a seat, a supporting-standard, a back, a pair of back-supporting arms arranged horizontally beneath the seat and connected at their outer ends to the back, pivotal connections between the adjacent ends of the arms and the standard, means for imposing uniform movement on said arms, the same consisting of intermeshing toothed gears on the pivot ends of said arms, and means for imposing rectilinear movement on the outer ends of said arms, the same comprising fixed cam-plates, a telescoping formation of said arms and engaging connections between the outer ends of said arms and the cam-plates, substantially as set forth.

6. The combination in a car-seat, of a supporting-standard, a seat, a supporting-frame for the seat connected in a tilting manner to the standard, a back, a pair of back-supporting arms arranged horizontally beneath the seat and connected at their outer ends to the back, means for imposing uniform movement on said arms, and means on the seat-supporting frame for guiding and supporting the outer ends of said arms, substantially as set forth.

7. The combination in a car-seat, of a supporting-standard, a seat, a supporting-frame for the seat connected in a tilting manner to the standard, a back, a pair of back-supporting arms arranged horizontally beneath the seat and connected at their outer ends to the back, means for imposing uniform movement on said arms, and means on the seat-supporting frame for imposing rectilinear movement on the outer ends of said arms, substantially as set forth.

8. The combination in a car-seat, of a supporting-standard, a seat, a supporting-frame for the seat connected in a tilting manner to the standard, a back, a pair of back-supporting arms arranged horizontally beneath the seat and connected at their outer ends to the back, means for imposing uniform movement on said arms, means on the seat-supporting frame for guiding and supporting the outer ends of said arms, and means for locking the seat-carrying frame in a tilted condition, substantially as set forth.

9. The combination in a car-seat, of a sup-

porting-standard, a seat, a supporting-frame for the seat connected in a tilting manner to the standard, a back, a pair of back-supporting arms arranged horizontally beneath the seat and connected at their outer ends to the back, means for imposing uniform movement on said arms, means on the seat-supporting frame for guiding and supporting the outer ends of said arms, and means for locking the seat-carrying frame in a tilted condition, one member of such locking means being carried by a back-supporting arm and the other member by the supporting-standard, substantially as set forth.

10. The combination in a car-seat, of a supporting-standard, a seat, a supporting-frame for the seat connected in a tilting manner to the standard, a back, a pair of back-supporting arms arranged horizontally beneath the seat and connected at their outer ends to the back, means for imposing uniform movement on said arms, means on the seat-supporting frame for guiding and supporting the outer ends of said arms, and means for locking the seat-carrying frame in a tilted condition, the same comprising a depending headed stud on one of the back-supporting arms and a slotted web or projection on the supporting-standard, substantially as set forth.

11. The combination in a car-seat, of a supporting-standard, a seat, a supporting-frame for the seat connected in a tilting manner to the standard, a back, a pair of back-supporting arms arranged horizontally beneath the seat and connected at their outer ends to the back, means for imposing uniform movement on said arms, and means for imposing rectilinear movement on the outer ends of said arms, the same comprising fixed cam-plates on the seat-supporting frame, a telescoping formation of said arms and engaging connections between the outer ends of said arms and the cam-plates, substantially as set forth.

12. The combination in a car-seat, of a supporting-standard, a seat, a supporting-frame for the seat connected in a tilting manner to the standard, a back, a pair of back-supporting arms arranged horizontally beneath the seat and connected at their outer ends to the back, pivotal connections between the adjacent ends of the arms and the standard, means for imposing uniform movement on said arms, the same consisting of intermeshing toothed gears on the pivot ends of said arms, and

means for imposing rectilinear movement on the outer ends of said arms, the same comprising cam-plates on the seat-supporting frame, a telescoping formation of said arms, and engaging connections between the outer ends of said arms and the cam-plates, substantially as set forth.

13. The combination in a car-seat, of a supporting-standard, a seat, a supporting-frame for the seat connected in a tilting manner to the standard, a back, a pair of back-supporting arms arranged horizontally beneath the seat and connected at their outer ends to the back, means for imposing uniform movement on said arms, means for imposing rectilinear movement on the outer ends of said arms, the same comprising fixed cam-plates on the seat-supporting frame, a telescoping formation of said arms, and engaging connections between the outer ends of said arms and the cam-plates, and means for locking the seat-carrying frame in a tilted condition one member of such locking means being carried by a back-supporting arm and the other member by the supporting-standard, substantially as set forth.

14. The combination in a car-seat, of a supporting-standard, a seat, a supporting-frame for the seat connected in a tilting manner to the standard, a back, a pair of back-supporting arms arranged horizontally beneath the seat and connected at their outer ends to the back, pivotal connections between the adjacent ends of the arms and the standard, means for imposing uniform movement on said arms the same consisting of intermeshing toothed gears on the pivot ends of said arms, means for imposing rectilinear movement on the outer ends of said arms, the same comprising cam-plates on the seat-supporting frame, a telescoping formation of said arms, and engaging connections between the outer ends of said arms and the cam-plates, and means for locking the seat-carrying frame in a tilted condition one member of such locking means being carried by a back-supporting arm and the other member by the supporting-standard, substantially as set forth.

Signed at Chicago, Illinois, this 15th day of July, 1902.

CHARLES K. PICKLES.

Witnesses:

ROBERT BURNS,
HENRY A. NOTT.