

No. 615,227.

Patented Nov. 29, 1898.

C. K. PICKLES.
STEP-OVER CAR SEAT.

(Application filed May 16, 1898.)

(No Model.)

Fig. 1.

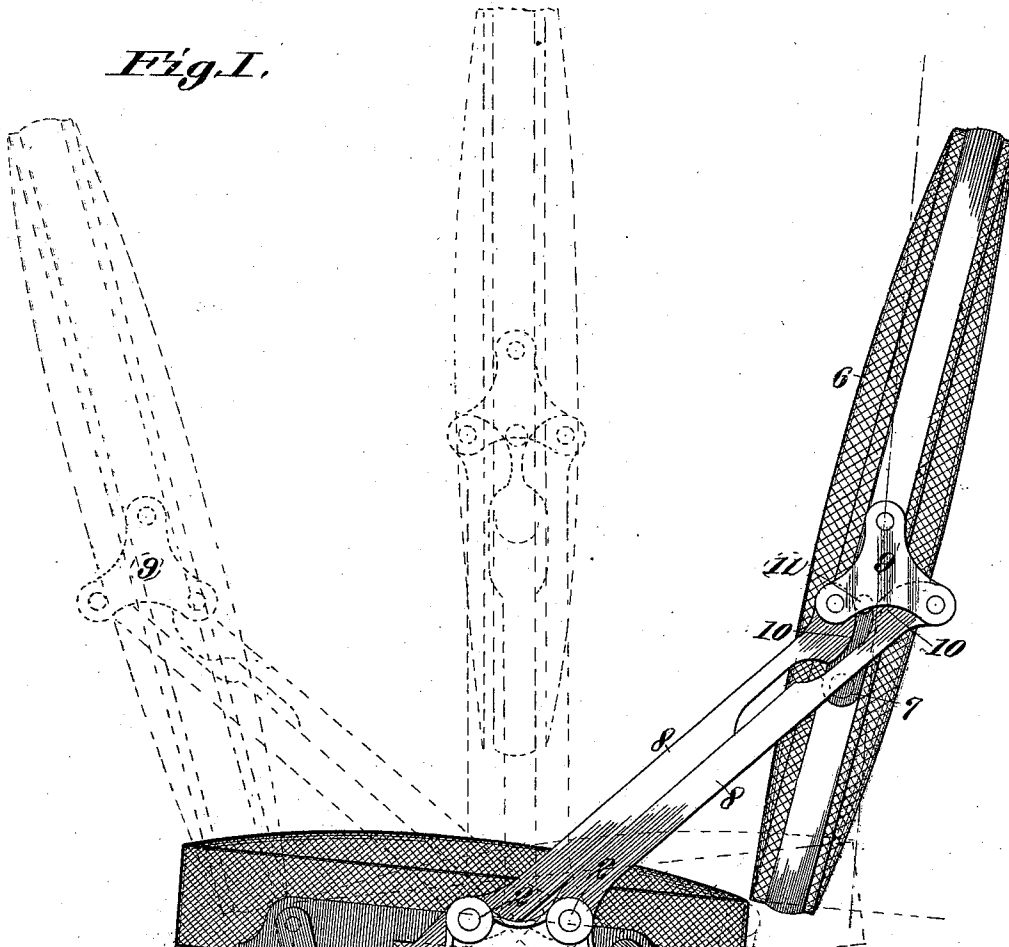


Fig. 3.

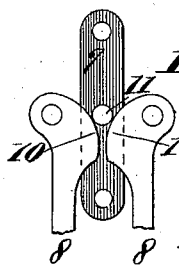


Fig. 5.

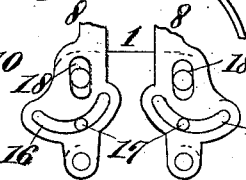


Fig. 2.

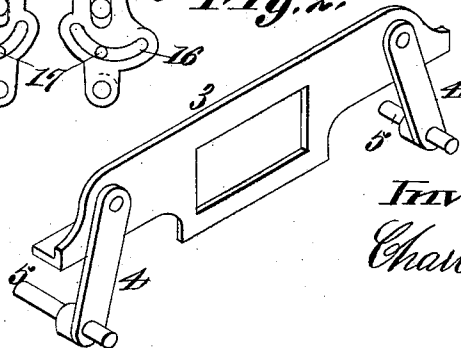
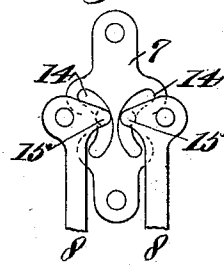


Fig. 4.



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UNITED STATES PATENT OFFICE.

CHARLES K. PICKLES, OF ST. LOUIS, MISSOURI, ASSIGNOR TO SAMUEL M. DODD, OF SAME PLACE.

STEP-OVER CAR-SEAT.

SPECIFICATION forming part of Letters Patent No. 615,227, dated November 29, 1898.

Application filed May 16, 1898. Serial No. 680,869. (No model.)

To all whom it may concern:

Be it known that I, CHARLES K. PICKLES, a citizen of the United States, residing at St. Louis, in the State of Missouri, have invented certain new and useful Improvements in Step-Over Car-Seats; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification.

The present invention relates to that type of car-seats in which the back is adapted to have a concurrent movement of reversal in unison with the tilting movement of the seat portion, an example of which type of car-seats forms the subject-matter of my prior application, Serial No. 666,687, filed January 14, 1898.

The objects of the present improvement are to provide a simple, durable, and effective mechanism between the seat-back, supporting-base, and seat proper, whereby the movement of the different parts is effected in a direct, positive, and concurrent manner without any liability to becoming inoperative or strained or broken in the ordinary manipulation of the car-seat. I attain such objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is an end elevation of a step-over car-seat embodying the present invention, the different positions of the back and seat proper being shown in full and dotted lines; Fig. 2, a detail perspective view of the seat-supporting mechanism of the present improvement; Fig. 3, a detail side elevation of the upper ends of the back-supporting arms, &c., with the triangular connecting-link removed to illustrate the mechanism for imparting a tilting movement to the back; Fig. 4, a detail elevation of a modification of such back-tilting mechanism; Fig. 5, a similar view of another modification, in which said mechanism is located at the lower ends of the back-supporting arms.

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

Referring to the drawings, 1 represents the supporting base or standard of the car-seat, of any usual and approved construction and

which in the present improvement will be provided with a pair of pivot-lugs 2, that are located equidistant each side of the center of such base or standard.

3 is the seat proper, of the usual type and which in the construction shown is adapted to shift from side to side upon a pair of supporting-links 4 4 at each end of the seat that have pivotal connection with the seat 3 and with the standard 2, as shown, and which in the present improvement are so arranged that the pivotal axis of said links at their point of connection with the base or standard are a greater distance apart than the pivotal axis at their point of connection to the seat portion, as illustrated in Fig. 1. With such arrangement the links at the forward side of the seat will have a substantially vertical position to afford a rigid support to such end in use.

In order to attain a concurrent movement of the links 4 4 at opposite ends of the car-seat, the lower pivot-rods 5 5 thereof will extend from end to end of the car-seat and the lower ends of the links be fixedly secured thereto.

6 is the seat-back, which in the construction shown is of the step-over type and finished or upholstered alike on both sides and provided with a fixed plate 7 near its mid-height for the pivotal attachment of the back-supporting arms.

8 are the back-supporting arms of a reversed counterpart construction pivoted at or near their lower ends to the pivot-lugs 2 of the base or standard heretofore described, their upper ends in the construction illustrated in Figs. 1 and 3 being connected to the lower ends of an intermediate triangular pivot-plate 9, that in turn is pivoted at its upper end to the fixed plate 7 on the seat-back. In the construction shown in said Figs. 1 and 3 the upper ends of the said back-supporting arms 8 will be formed with reversed counterpart cam-shaped enlargements 10, that have engagements with a single interposed stud 11 on the seat-back, the purpose of such mechanism being to impart a concurrent and continuous tilting movement to the seat-back coincident with its step-over movement across the seat portion.

12 are extensions of the back-supporting arms that extend below the point of pivotal attachment of such arms to the base or standard and which in the construction illustrated in the drawings are connected together at their lower end by a link 13, that in turn is adapted to contact with opposite sides of an elongated slot in the seat portion, so as to impart the proper shifting movement to the same.

In the modification illustrated in Fig. 4 cam-grooves 14 in the fixed plate 7 of the seat-back and crank-pins 15 on the upper ends of the back-supporting arms are used instead of the cam-shaped enlargements and single interposed stud heretofore described for imparting a continuous and concurrent tilting movement to the back coincident with its step-over movement across the seat portion.

In the modification illustrated in Fig. 5 the back-supporting arms 7 will have cam-grooves 16 arranged adjacent to the point of pivotal attachment of the said arms to the base or standard, which cam-grooves are engaged by fixed studs 17 on the base or standard. With this construction the pivotal connection of the back-supporting arms to the base or standard will be by means of a pivot-pin and an elongated slot 18, as shown, so as to permit of the longitudinal movement of said arms due to the use of the cam-groove and fixed stud just described.

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

1. In a step-over car-seat, the combination of a seat, a supporting-standard, a back, a pair of back-supporting arms pivoted to the standard equidistant at each side of the center thereof and indirectly to the back to admit of independent pivotal movement of the back, and means for imparting continuous

and concurrent tilting movement to the seat-back, coincident with its step-over movement across the seat, substantially as set forth.

2. In a step-over car-seat, the combination of a seat, a supporting-standard, a back, a pair of back-supporting arms pivoted to that standard equidistant at each side of the center thereof, and means for imparting continuous and concurrent tilting movement to the seat-back coincident with its step-over movement across the seat, the same comprising a reversed counterpart cam formation and a stud engaging therewith, substantially as set forth.

3. In a step-over car-seat, the combination of a seat, a supporting-standard, a back, a pair of back-supporting arms having pivotal connection with the standard equidistant from the center line thereof, and having at their upper ends counterpart cam formations, an interposed fixed stud upon the back adapted to engage said cam formations and an intermediate connection between the upper ends of said arms and the back, substantially as set forth.

4. In a step-over car-seat, the combination of a seat, a supporting-standard, a back, a pair of back-supporting arms having pivotal connection with the standard equidistant from the center line thereof, and having at their upper ends counterpart cam formations, an interposed fixed stud upon the back adapted to engage said cam formations, and an intermediate link connected at its lower ends to said arms and at its upper end to the seat-back, substantially as set forth.

In testimony whereof witness my hand this 13th day of May, 1898.

CHARLES K. PICKLES.

In presence of—
J. V. PICKLES,
ROBT. BURNS.