

No. 753,545.

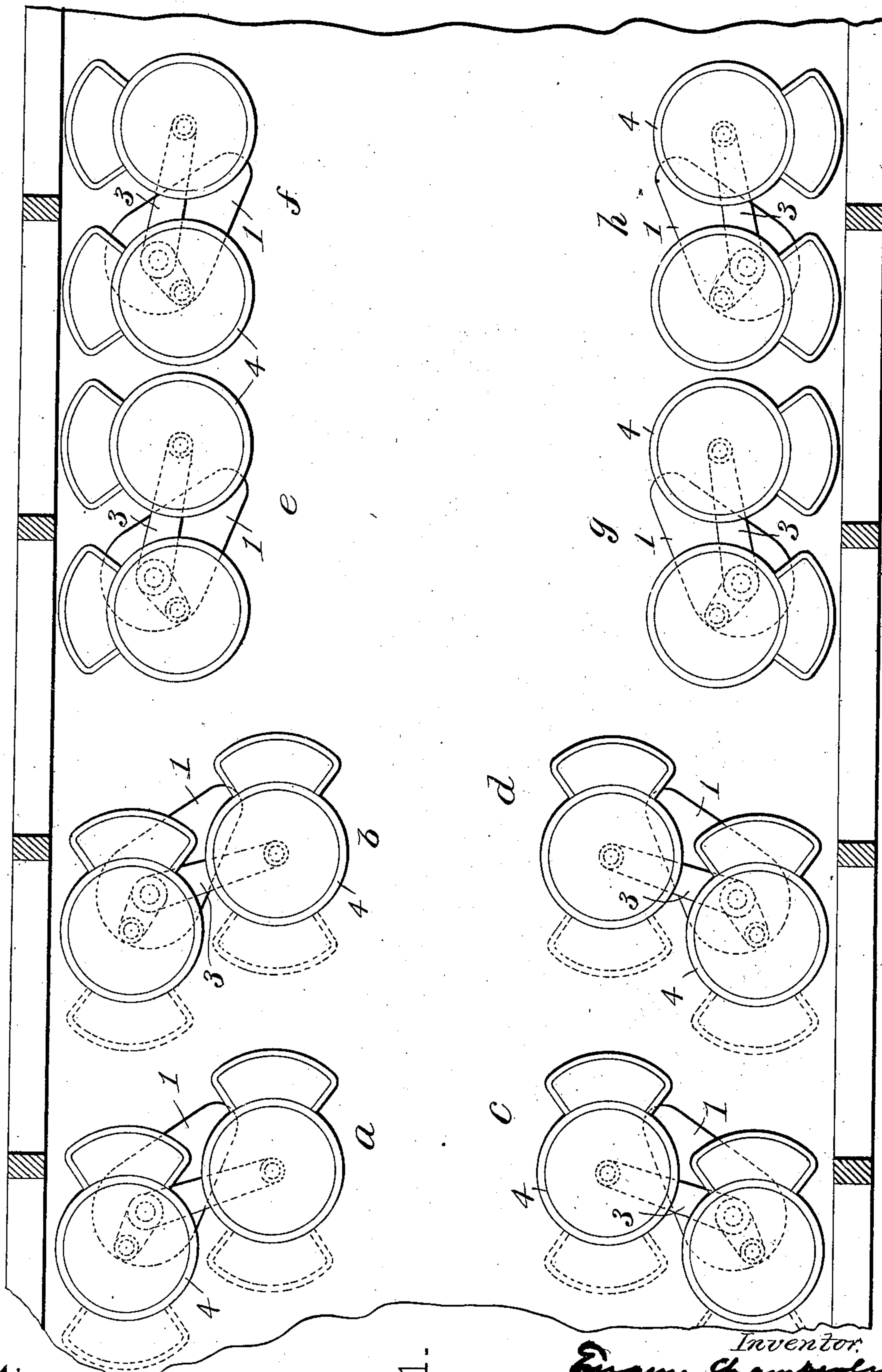
PATENTED MAR. 1, 1904.

E. CHAMBERLIN.  
CAR SEAT.

NO MODEL.

APPLICATION FILED JUNE 1, 1901.

2 SHEETS—SHEET 1.



Witnesses.  
H. Hammond  
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FIG. 1.

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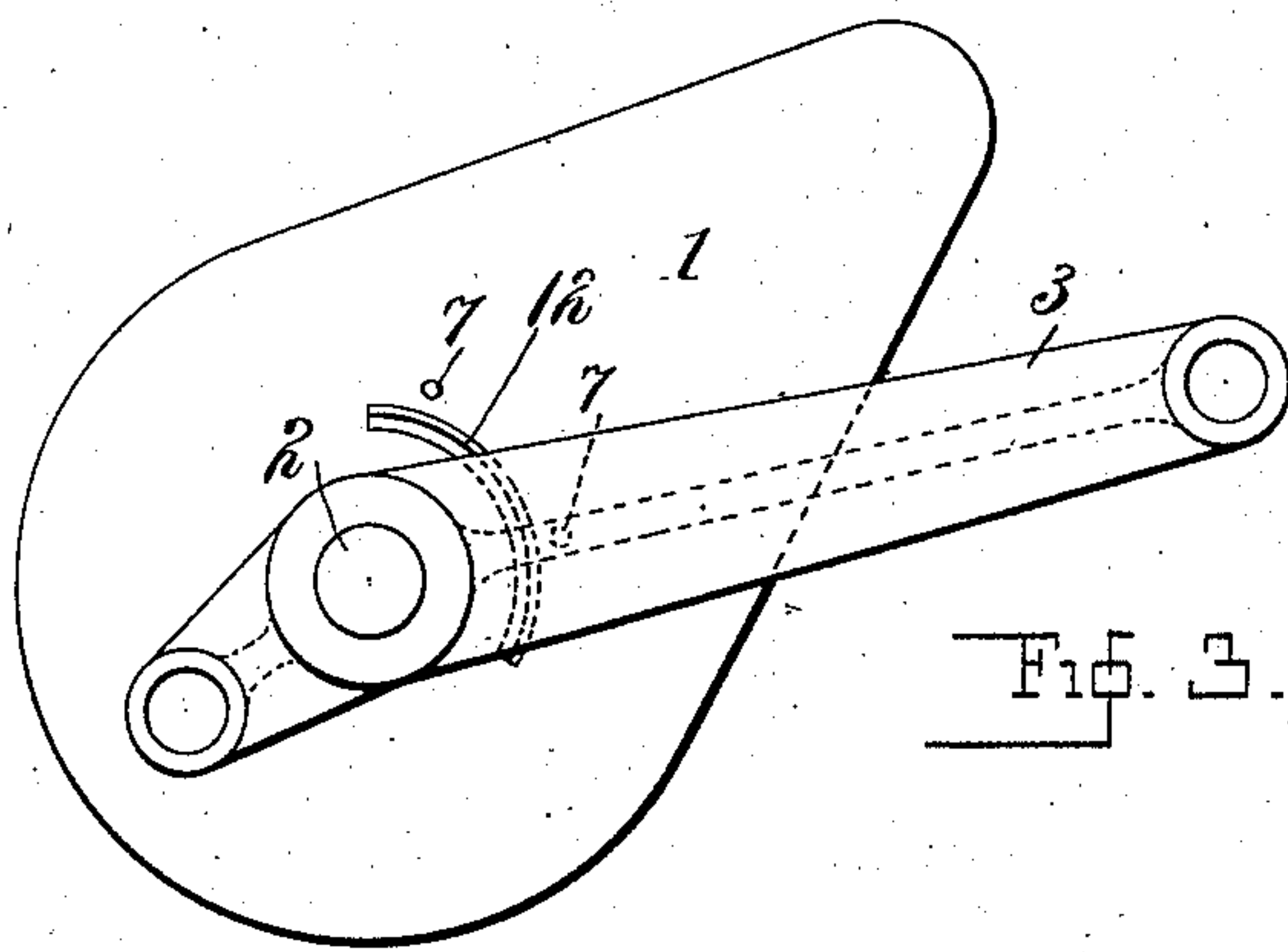
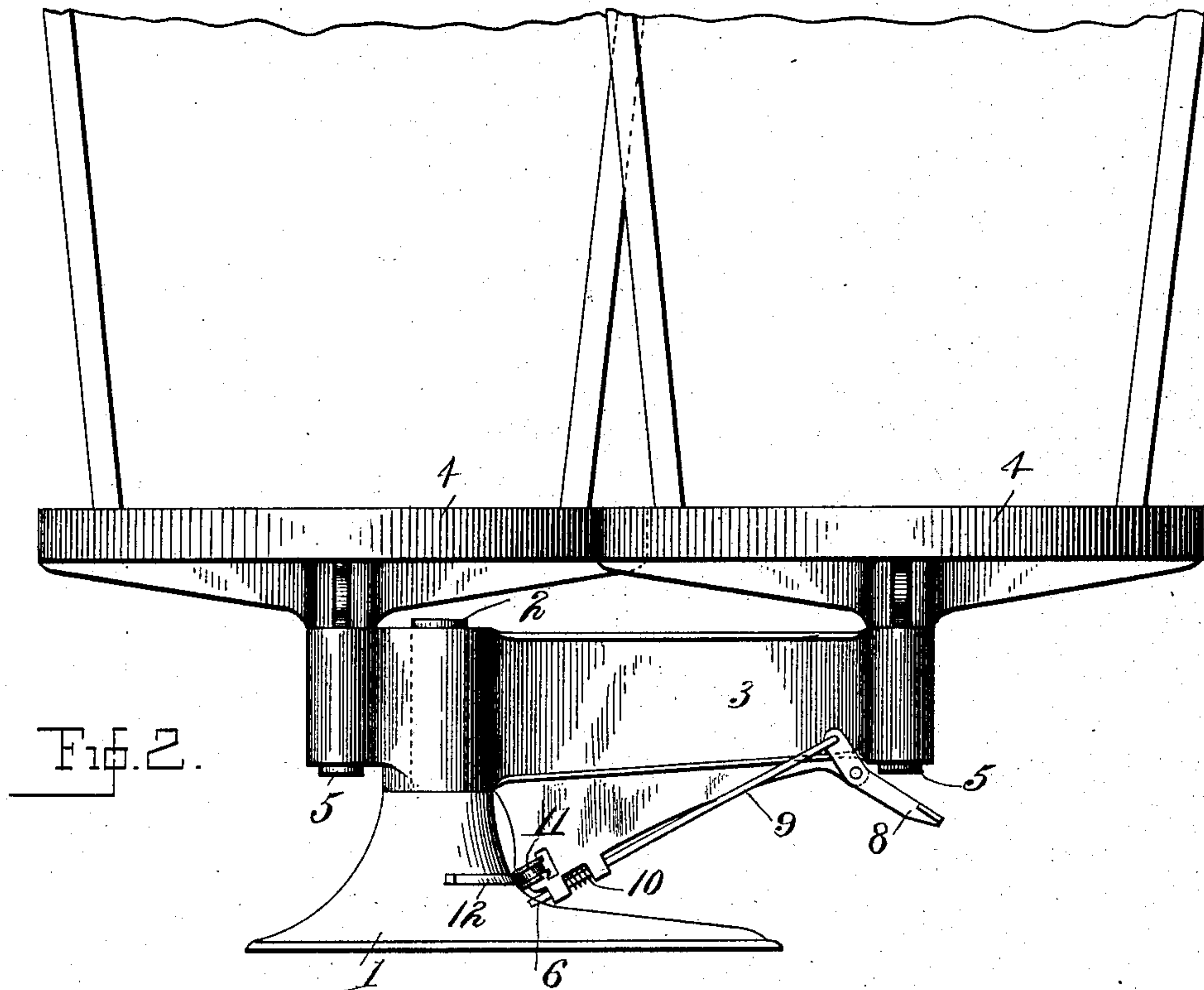
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2 SHEETS—SHEET 2.



Witnesses.  
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## UNITED STATES PATENT OFFICE.

EUGENE CHAMBERLIN, OF BROOKLYN, NEW YORK.

## CAR-SEAT.

SPECIFICATION forming part of Letters Patent No. 753,545, dated March 1, 1904.

Application filed June 1, 1901. Serial No. 62,682. (No model.)

*To all whom it may concern:*

Be it known that I, EUGENE CHAMBERLIN, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Car-Seats, of which the following is a specification.

This invention relates to improvements in car-seats; and its object is to provide a car-seat construction which will permit the relative position of the seats to be changed easily and rapidly.

As passengers prefer to sit facing forward, it is desirable to provide seats facing in this manner; but this requires that the seats should be arranged with aisles or interseat spaces extending crosswise of the car, the seats being generally arranged in pairs or double seats on each side of the car, with a narrow center aisle extending longitudinally of the car. This arrangement provides but little standing room, and when an unusually large number of passengers is to be accommodated it is found that the arrangement of the seats lengthwise of the car in a single row on each side is preferable, as it leaves a wide center aisle sufficient to accommodate many extra passengers.

My invention provides for changing the relative position of the seats from the crosswise to the lengthwise arrangement, or vice versa. To this end the seats or double seats of each seat structure are swiveled or movably supported to turn on a vertical axis which is eccentric relatively to the seat structure, so that as the latter turns on said axis it will be shifted bodily to change its location, as well as its direction, relatively to the car-floor and enable the seat structure to be placed either transverse to the car or to be swung away from the middle of the car and close up against one side of the car. Structures have been devised wherein two seats are mounted on a common swivel-support, so that the seat structure could be directed longitudinally or transversely of the car; but in such a device, with the pivot of the swivel-support arranged centrally with regard to the seat structure, the swinging of the latter longitudinally of the car would be useless for my present pur-

pose, as it gives very little more room in the middle of the car and wastes much room at the sides. By eccentric arrangement of the pivot I enable the seats to be swung bodily toward the side of the car or laterally, as well as turned lengthwise, and therefore transfer the free space from the outside, where it is useless, to the inner side, where it is desired.

One feature of the invention which permits the accomplishment of the above-mentioned object consists in having the pivots of the seat structures symmetrically arranged beneath all the seats along the side and fixed in the car at a uniform distance apart which corresponds to the length of the seat structures, so that when the latter are turned lengthwise of the car they will substantially fill the space.

Another feature of the invention consists in having the pivots so located with respect to the sides of the car and to the back and one end of the seat structure that the latter may be turned to bring either the end of the seat structure or its back adjacent to the side of the car, and thus while permitting the structure to turn cause the end of the back to come close to the side of the car and avoid waste of space. This position of the pivot may be defined as being substantially equidistant from the side of the car, from the back of the seat, and from an end of the seat structure.

A further feature consists in locating the pivot eccentrically to the ends of the seat structure, the advantage of which in addition to permitting the aforesaid equidistant arrangement of the pivots is to bring the pivotal center well in from the back and front of the seat while still maintaining the aforesaid equidistant location of the pivot, and thus permitting the use of a supporting-pivot or pivotal support in addition to a mere pivot about which the seat turns. By defining the pivot as being equidistant from the side of the car and from one end of the back of the seat structure absolute measurements are not intended, for obviously if the seat has a back which inclines slightly the rear line of the seat proper may not be brought as close to the side of the car as the end of the seat structure, although in the most economical arrangement the vertical pro-



jection of the rearmost position of the back would bear substantially the same relation to the pivot as the end of the seat structure and the side of the car. The number of seats  
 5 which will be mounted thus on a single swivel-support will generally be two, and these two seats may be separate or formed as an ordinary double seat; but the invention is not  
 10 limited in respect to the number of seats so mounted.

I have herein shown my invention as embodied in construction wherein two seats are separately mounted on each swivel-support.

In the accompanying drawings, Figure 1 is  
 15 a plan view of a portion of a car-floor with the car sides in section, showing a number of the seats constructed according to my invention and arranged part of them crosswise and  
 20 and part lengthwise of the car. Fig. 2 is an elevation of a pair of seats and their swivel-support. Fig. 3 is a plan view of the base and swivel support or arm mounted thereon.

Each seat structure comprises a base-pedestal or foot-piece 1, suitably secured adjacent to  
 25 a side of the car-body to the car-floor thereof in oblique position, so as not to extend beyond the aisle between the seats, while providing an extended bearing, a vertical stud or standard 2, rising therefrom at the heel thereof, a swivel-support or beam 3, mounted to turn on the  
 30 stud 2, and one or more, in this case two, seats or chairs 4, mounted on said support. One at least of these seats should be offset or out of line with the center or pivot stud 2, and I  
 35 prefer to make both of them so, as shown, the seats being mounted on the ends of the two arms of the swivel-support and on opposite sides of pivot-stud 2. I prefer to mount the seats pivotally on support 3 by pivots 5,  
 40 which are at different distances from the pivot-stud 2, so that the latter is nearer one end of the seat structure than it is to the other end thereof or is eccentrically arranged with regard to the real structure. A locking dog  
 45 or catch 6 on swivel-support 3 engages with holes 7 in base 1 to lock the support in either position, and a treadle or foot-lever 8 is provided on this support in position convenient of access and is connected by a rod 9 with  
 50 catch 6, so as to release same from the base when said treadle is operated. A spring 10 tends to push said catch into engagement with the base. The strain on stud 2 may be partially relieved by a roller 11 on swivel-sup-  
 55 port 3, running on a rail or track 12 on base 1.

Referring now to Fig. 1, the seat structures *a b c d* at one end are shown in crosswise position on the car-floor 13 and are in position to permit the passengers to sit facing forward  
 60 or an end of the car. On loosening the catch (shown in Fig. 2) each pair of seats may be swung or shifted around to the position shown at the other end of Fig. 1 for seats *e f g h*, facing the aisle, and they are automatically  
 65 locked in the shifted position by the catch

aforesaid. In this position they leave a much wider aisle-space, as is apparent from the drawings.

By this invention the pair of seats forming a seat structure is bodily shifted or translated  
 70 relatively to the car-floor as distinguished from a mere rotation of the seat structure around a central or middle point, and the object of such bodily shifting is to rearrange the actual location of the pair of seats on the floor  
 75 as distinguished from the mere direction of facing.

Having thus described my invention, the following is what I claim as new therein and desire to secure by Letters Patent:

1. In a car-seat, the combination, with a pedestal; of a beam pivoted thereon, the pivotal point being nearer to one end of said beam than the other, and chairs mounted upon said beam.

2. In a car-seat, the combination, with a pedestal; of a beam pivoted thereon, the pivotal point being nearer to one end of said beam than the other, and chairs pivotally mounted upon said beam.

3. In a car-seat, the combination, with a pedestal; of a beam pivoted thereon, the portion of said beam on one side of such pivot extending at an angle to that portion thereof on the other side of said pivot, and chairs mounted on said beam.

4. A car-seat construction comprising a seat structure, a pivotal support for the same, eccentrically arranged with regard to the ends of the seat structure.

5. A car-seat construction comprising a seat structure, a pivotal support for same eccentrically arranged with regard to the ends of the seat structure, whereby the seat structure may be directed transversely or longitudinally of the car and may at the same time be moved bodily relatively to the car-floor, and means for locking the seat structure in different positions.

6. A car-seat construction comprising a swivel-support, and a pair of seats pivotally mounted thereon at different distances from the pivot of the swivel-support, so as to enable the two seats to be given a lateral movement with regard to the car-floor.

7. The combination with a car-body, of a plurality of seat constructions, each comprising a swivel-support whose pivot is arranged eccentrically with respect to the ends of the seat structure whereby each seat structure is movable to present the seating means carried thereby either crosswise or lengthwise of the car and at the same time move the seat structure, as a whole, laterally with regard to the car-body.

8. In a street-railway car, a series of seat structures proportioned to substantially fill the longitudinal dimension of the seat-space along the side of the car and each seat structure having a pivot located substantially equi-



distant from the end of the seat structure, the back of the same and the side of the car to permit the seat structure to be turned to bring either the end or the back of the seat structure adjacent to the side of the car and form either a series of transverse seats or a continuous longitudinal series of seats.

9. In a railway-car, a series of seat structures fitting end to end along the side of the car and having pivots located symmetrically beneath all the seat structures spaced apart a distance equal to the length of the seat structure whereby said seat structures may be moved into a position transverse to the car.

10. In a railway-car, a series of seat structures uniform in length fitting end to end along the side of the car and each mounted upon a pivot, the pivots being symmetrically disposed beneath the seat structures spaced apart in a longitudinal direction a distance equal to the length of the seat structure and located substantially equidistant from the side of the car and end of the seat structure and back of the seat, for the purpose set forth.

11. In a railway-car, a seat structure having a pivotal support located equidistant from the side of the car, from the end of the seat structure and from the back of the seat.

12. A seat structure for railway-cars having a pivotal support located eccentrically between the ends of the seat structures and a distance from one end substantially equal to the distance at which the pivot is to be placed from the side of the car.

13. In a railway-car, a seat structure having a pivotal support located eccentrically between the ends of the seat structure and at a point substantially equidistant from the side of the car, the back of the seat and an end of the seat structure.

14. In combination with a railway-car, a series of seat structures of identical construction fitting end to end and along the side of the car and forming a continuous series of seats longitudinal of the car and pivotal supports symmetrically disposed beneath the seat structures spaced apart in a longitudinal direction a distance equal to the length of a seat structure and each located substantially equidistant from the side of the car and end of the seat structure and back of the seat.

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Witnesses:

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WM. A. COURTLAND.