

J. E. KILBURN.  
CAR SEAT.  
APPLICATION FILED DEC. 6, 1912.

1,232,931.

Patented July 10, 1917.  
2 SHEETS—SHEET 1.

Fig. 1,

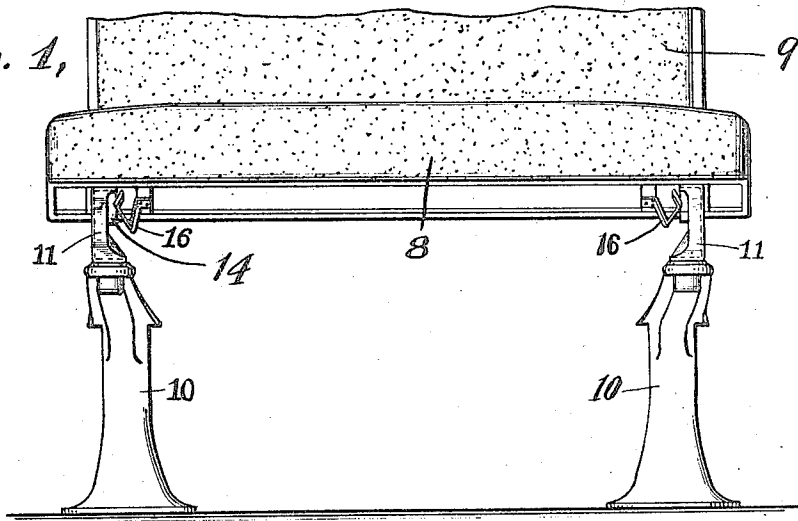


Fig. 2,

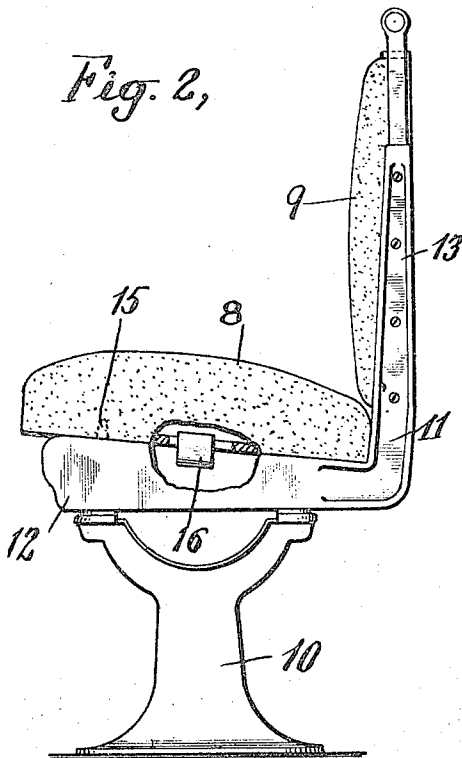


Fig. 3,

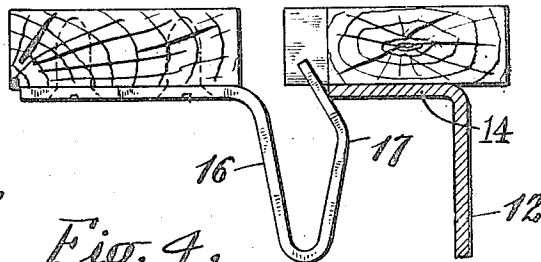
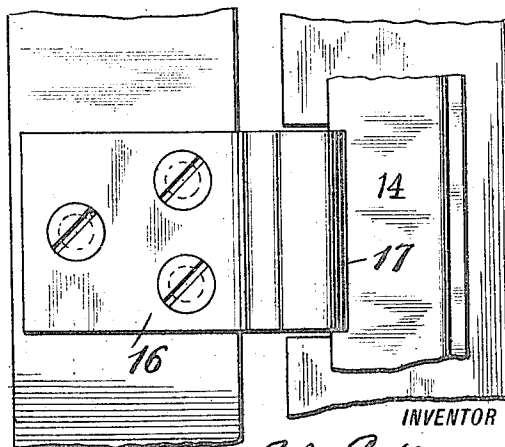


Fig. 4,



WITNESSES

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Fig. 5,

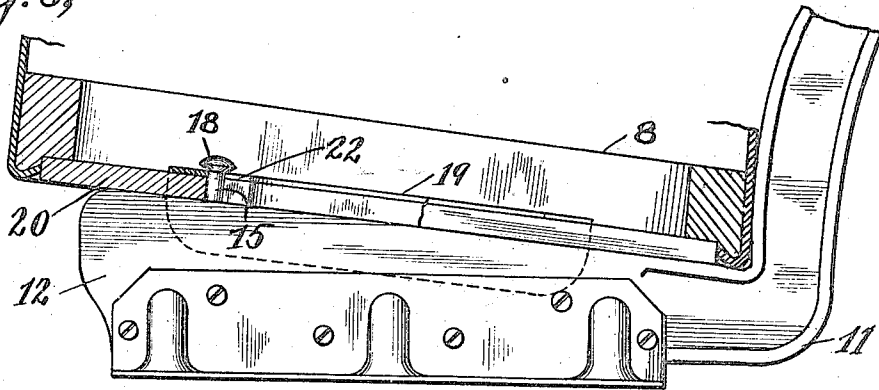


Fig. 6,

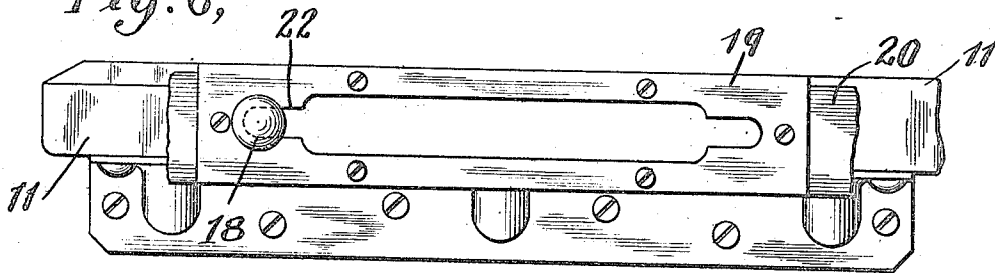
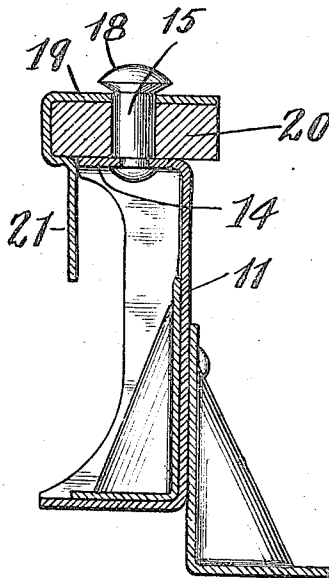


Fig. 7,



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# UNITED STATES PATENT OFFICE.

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## CAR-SEAT.

1,232,931.

Specification of Letters Patent.

Patented July 10, 1917.

Application filed December 6, 1912. Serial No. 735,193.

*To all whom it may concern:*

Be it known that I, JOHN E. KILBURN, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Car-Seats, of which the following is a specification.

This invention relates to car-seats and is directed to the improvement of the construction of such seats with respect particularly to the means whereby the seat-cushion of a car-seat is mounted upon the supporting structure therefor.

In car-seats of many types, it has been the common practice heretofore to provide the structure upon which the seat-cushion is mounted with supporting surfaces inclined slightly with reference to the horizontal and pins projecting upwardly from these supporting surfaces and adapted to enter openings in the bottom of the seat-cushion. When a seat-cushion is mounted on such supporting surfaces and pins, there is nothing to prevent raising the seat-cushion from its support, and it has frequently occurred that, when an occupant of the seat rises therefrom, he accidentally lifts the seat-cushion to such extent as to disengage the pins referred to from their openings in the cushion. When this has occurred, the seat-cushion is readily movable laterally and may easily become so moved a considerable distance from its proper position. This possibility of lateral movement of the seat-cushion is particularly objectionable in car-seats of the type in which the seat-cushion is mounted upon two supporting structures, one at each end of the seat, which structures are entirely disconnected so that the space between them is unobstructed. If such a seat had the cushion mounted upon the supporting structures merely by the usual inclined supporting surfaces and pins thereon, the cushion might become raised off the pins and then shifted laterally to such extent that one end of the cushion would drop downwardly between the supporting structures.

In order to eliminate this objectionable characteristic of car-seats as heretofore constructed, I have provided means for so connecting the seat-cushion to its supporting structures that the danger of the cushion being accidentally lifted from its support

is avoided, the connection being such, however, that the seat-cushion may be readily removed when its removal is desirable, as for instance, for the purpose of inspection, cleaning or repairs.

I have illustrated in the accompanying drawings two constructions whereby the seat-cushion may be so connected to its support. In these drawings Figure 1 is a front view of a car-seat broken away in part, Fig. 2 is an end view of the seat also broken away in part, Figs. 3 and 4 are detail views illustrating the detachable connection between the cushion and its support, Fig. 5 is a sectional elevation of a modified form of detachable connection, Fig. 6 is a top view of certain of the parts shown in Fig. 5 broken away in part, and Fig. 7 is a sectional view of the construction shown in Figs. 5 and 6.

Referring first to Figs. 1 to 4, inclusive, a car-seat is shown of the type having a supporting structure at each end of the seat and a seat-cushion 8 and back 9 mounted thereon. In the construction shown, the supporting structure consists of two metallic pedestals 10, each having a standard 11 mounted thereon. It will be seen, however, that if desired, one end of the seat may be supported upon the wall of the car, in which case one pedestal 10 would be omitted and one of the standards 11 would be secured upon the car wall. The standard shown is formed from sheet metal and consists of a horizontally disposed cushion-supporting member 12 and a back-supporting arm 13 extending upwardly from one end of the member 12. The member 12 has a flange 14 extending along its upper edge and inclined slightly with reference to the horizontal, this flange forming the supporting surface upon which the seat-cushion 8 rests. A pin 15 is provided extending upwardly from the flange and adapted to enter an opening provided in the frame or a slat of the cushion. The back cushion 9 is secured to the back-supporting arms 13 so that in the type of seat illustrated the back is not movable to reverse the facing direction of the seat.

When the seat-cushion 8 is mounted upon the supporting structure by merely resting it upon the flanges 14 of the standards 11, with the pins 15 entering the openings in the cushion, it will be noted that there is nothing to prevent upward movement of

the seat-cushion, and the seat may be so raised accidentally, as when an occupant of the seat rises from a sitting posture. Furthermore, it will be noted that there is no connection between the two supporting structures, such as the connecting rails which are sometimes provided, so that the space between the two supporting structures is entirely unobstructed. If the seat cushion were so raised that the pins 15 were out of their openings, the cushion might then be accidentally moved laterally until one end of the cushion dropped into the space between the two supporting structures. In order to guard against this, I have provided means for connecting the seat-cushion to the supporting structures, this connection being detachable so that when it is desired to do so the seat-cushion may be readily detached from the supporting structures by a movement of the cushion itself. In Figs. 1 to 4, this detachable connection is shown as consisting of two sheet-metal strips 16 bent to the shape shown in Fig. 3 and secured to the bottom of the cushion 8 in such positions as to engage the sides of the standards 11. These strips 16 have bends therein, as shown at 17, which, when the cushion is in position, are slightly below the flanges 14 of the standards. When the seat-cushion is in position, the bent ends of the strips 16 will engage with the flanges 14 and hold the seat-cushion to the supporting structure securely enough to prevent any unintended upward movement of the cushion. However, these bent ends of the strips 16 will yield when necessary, by reason of their spring action, so that whenever it is desired to raise the seat-cushion, this may be done by applying a relatively small amount of force to the cushion to move it in the upward direction. It will also be noted that not only do the strips 16 detachably connect the cushion to the supporting structure but that they, furthermore, serve as a guiding means in positioning the cushion, for when the cushion is lowered into position, the ends of the strips 16 will coast with the lateral edges of the standards 11 so as to guide the cushion in its downward movement and thus cause the pins 15 to enter the openings provided therefor in the cushion.

In Figs. 5, 6 and 7, a different form of detachable connection is shown. In this construction, the pins 15 on the standards 11 are provided with heads 18 and a slotted sheet-metal strip 19 is provided at each end of the cushion adapted to coast with one of the headed pins. Each strip 19 is secured to one of the slats 20 of the cushion, and at one edge it is provided with an extension 21 which projects downwardly below the slat 20 so as to coast with the flange 14 of the standard. In the body portion of the strip 19 is a slot which is of a width slightly

greater than the diameter of the head 18 of the pin 15, except at its ends, where it is contracted in width, as shown at 22, so that it is of less width than the diameter of the head 18, but of slightly greater width than the diameter of the shank of pin 15. The slat 20 to which member 19 is secured is provided with a slot coextensive with the slot in the member 19. The extensions 21 act as guides in positioning the cushion, so that pins 15 and their slots will surely engage, and also prevent the cushion slipping sidewise and dropping between the standards if proper care is not exercised to engage the studs in the slots.

With this construction, it will be seen that the cushion can be mounted in position by lowering it upon the standards slightly forward of its normal position, so that the headed pins 18 pass through the wider portions of the slots in slats 20 and strips 19. This having been done, the cushion is moved rearwardly to its proper position, whereupon the pins pass into the narrow portions of the slots so that their heads overlie the members 19 and thus hold the cushion against upward movement. When the cushion is thus positioned, it cannot be accidentally raised, and yet it may be readily detached when its removal is desired. Also the extensions 21 of the members 19, by their coaction with the side edges of the standards, assist in positioning the cushion when it is being placed in position upon the standards.

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

1. In a car seat, the combination of two disconnected supporting structures, one for each end of the seat, and each having a supporting surface upon which the end of the seat is adapted to rest, the space between the two supporting structures being unobstructed, a seat-cushion removably mounted upon said surfaces, vertical pins on said structures adapted to enter corresponding openings in the cushion, and a connection between the seat-cushion and its supports for holding the cushion upon the said supporting surfaces, which connection is operable by movement of the cushion to disengage the cushion from its supports, substantially as set forth.

2. In a car-seat, the combination of supporting structures at the ends of the seat having supporting surfaces upon which a seat cushion is adapted to rest, a seat-cushion mounted upon said surfaces, vertical pins on said structures adapted to enter corresponding openings in the cushion, and connections between the seat-cushion and its supports for holding the cushion against upward movement, said connection being operable by movement of the cushion to disengage the

cushion from the support and including a member extending downwardly from the bottom of the cushion in coaction with the side of the supporting structure, to act as a guide for the cushion in positioning the same, substantially as set forth.

3. In a car-seat, the combination of two disconnected supporting structures one for each end of the seat and each having a supporting surface upon which the end of the seat-cushion is adapted to rest, the space between the two supporting structures being unobstructed, a seat-cushion mounted upon said surfaces, headed pins projecting upwardly from said surfaces, two members se-

cured to the seat-cushion and each provided with a slot of greater width at one portion than at another and adapted to coact with one of said headed pins, and a downward extension on each of said members adapted to coact with the side of one of said supporting structures to act as a guide for the cushion in positioning the same, substantially as set forth.

This specification signed and witnessed this 3rd day of December, 1912.

JOHN E. KILBURN.

Witnesses:

W. J. EARNSHAW,  
JOHN B. KILBURN.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."