

UNITED STATES PATENT OFFICE.

JOHN KREHBIEL, OF CLEVELAND, OHIO.

CAR-SEAT.

SPECIFICATION forming part of Letters Patent No. 474,666, dated May 10, 1892.

Application filed April 20, 1891. Serial No. 389,690. (No model.)

To all whom it may concern:

Be it known that I, JOHN KREHBIEL, of Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Car-Seats; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use the same.

My invention relates to improvements in car-seats; and it consists in certain features of construction and in combination of parts hereinafter described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is an end elevation. Fig. 2 is a front side elevation, partly in section. Fig. 3 is a horizontal section. Figs. 4 and 5 are side elevations in detail.

A represents a pedestal or standard, usually of metal and resting on and secured to the car-floor. Resting upon the pedestal is a metal yoke or frame B, having a transverse centrally-located slot *b*, in which operates the securing-bolt *a*, that fastens the frame to the standard, this bolt having a hand-nut *a'*, by loosening which the seat may be moved lengthwise the slot—for instance, in moving two seats back to back and thereby giving more room between two seats that are facing each other. When the nut is loosened, the seat may be turned on the standard with bolt *a* as an axis. The frame at the ends has longitudinal slots *b'*, through which the securing-bolts *c* pass, that secure arm C to the end of the frame B, and by loosening these bolts the arms may be moved lengthwise slots *b'* to incline the back D more or less, as may be desired. The lower edge of the back is fulcrumed at the rear side of frame B, as shown in Fig. 1. Hence by moving the arms endwise the seat is tilted more or less, according to the movement of the arms. The upholstered seat E rests on frame B, and by turning up this seat the hand-nut *a'* becomes accessible. The arms and the back are connected by links, (see Fig. 1,) these links comprising two overlapping sections F and G, member G being pivoted at *g* to the back and member F being pivoted at *f* to the arm.

Member G has a concaved or semi-cylindrical section *G'*, having a web or head *g'* at the free end thereof, this web or head having a hole for receiving loosely the rounded section or bolt end *F'* of member F, this member being provided with a washer and nut at the free end thereof, as at *f'*, and between the washer and head *g'* is located a spiral spring H, coiled around member *F'*, so that in elongating the link this spring is compressed. Hence the back D is not held rigid, but may yield as the spring is compressed, and this prevents in a great measure the jerking and jarring that a person is subjected to in starting a train or with a train running at high speed.

In the modification shown in Fig. 5 member G has a flat section *G²*, extending past the free end of member F, section *G²* having a slot *g²*, through which the pivotal bolt *f* passes with an easy fit, and the length of this slot limits the distance that the link as a whole can lengthen or shorten—that is to say, in tilting the seat forward and back the end walls of this slot by engaging the bolt *g* constitute stops, so that in case the spring H becomes weak or is broken the back D can only tilt a limited distance. With the construction shown the link that connects the arms with the back has substantially a slip-joint, with a spring at the joint to resist the expansion of the link, and this gives the effect of a spring-backing to the tilting seat-back D, that makes it exceedingly comfortable, especially in traveling long distances, where one is likely to become wearied with the constant jerking otherwise had.

What I claim is—

1. The combination, with a pedestal, a frame provided with slots, and arms adjustably connected with the frame through the medium of the slots, of a back and extensible links connecting the back with the arms, said links composed of sections overlapping at their ends and having an interposed spring connected with the overlapping ends, so as to permit the links to elongate and resume their normal lengths, substantially as set forth.

2. The combination, with a pedestal, a frame adjustably connected thereto, said frame hav-

ing slots, and arms adjustably connected
through the medium of the slots, of a back,
and extensible links connecting the back and
adjustable arms, said links composed of sec-
5 tions the ends of which overlap and provided
with spiral springs, which permit them to
elongate or contract, substantially as set forth.

In testimony whereof I sign this specifica-
tion, in the presence of two witnesses, this
25th day of March, 1891.

JOHN KREHBIEL.

Witnesses:

C. H. DORER,
WARD HOOVER.