

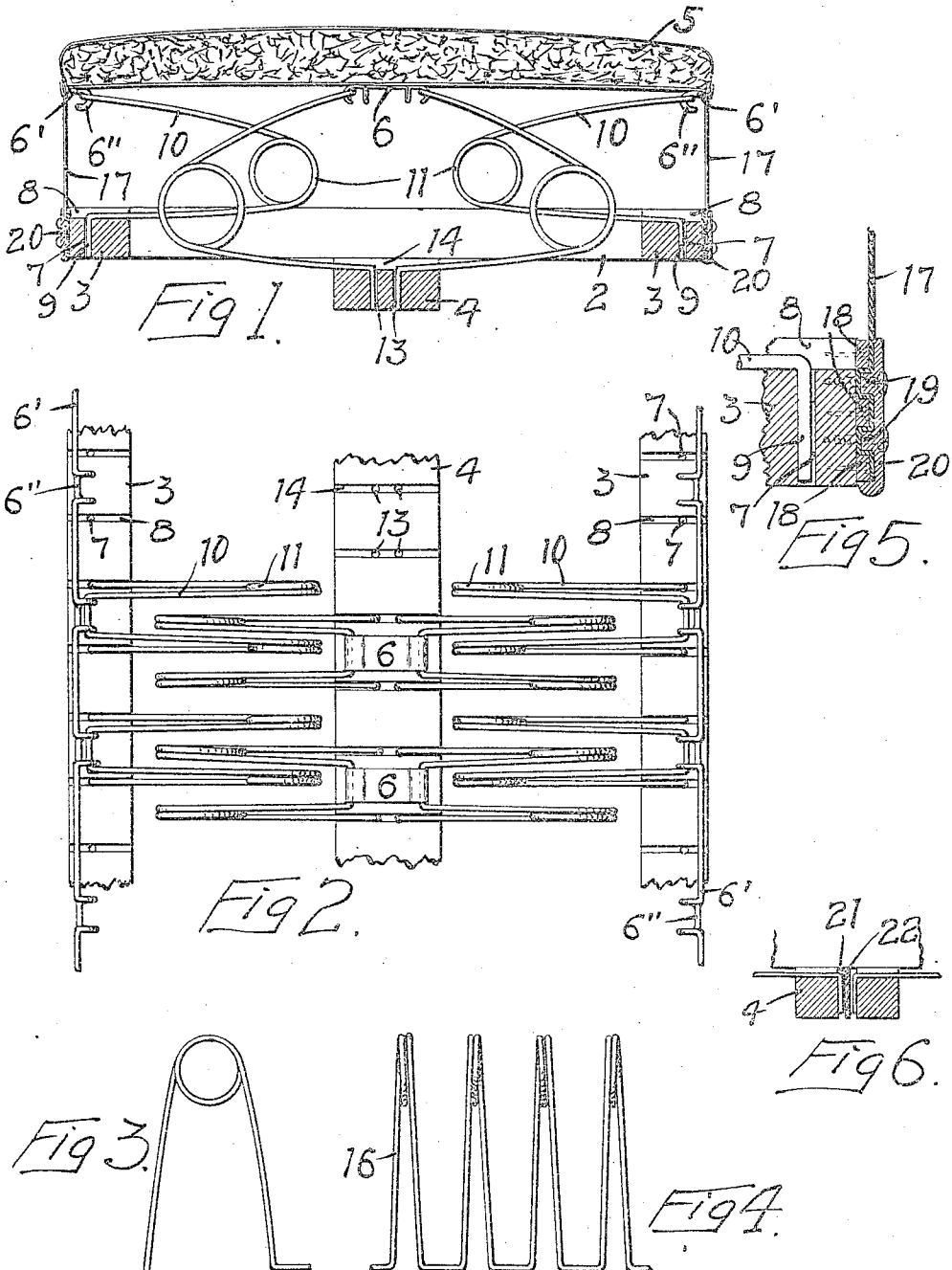
F. HACHMANN.

CAR SEAT.

APPLICATION FILED JAN. 23, 1909.

946,125.

Patented Jan. 11, 1910.



WITNESSES
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FREDERICK HACHMANN, OF ST. PAUL, MINNESOTA.

CAR-SEAT.

946,125.

Specification of Letters Patent.

Patented Jan. 11, 1910.

Application filed January 23, 1909. Serial No. 473,330.

To all whom it may concern:

Be it known that I, FREDERICK HACHMANN, of St. Paul, Ramsey county, Minnesota, have invented certain new and useful
5 Improvements in Car-Seats, of which the following is a specification.

My invention relates to upholstered seats for street cars, railway passenger coaches and vehicles.

10 The object of the invention is to provide an improved spring support for the upholstered cushion, which will permit the removal of any one spring, should it become broken or damaged, and the substitution of
15 another spring in its place, without the necessity of taking the seat apart. Generally, in upholstered seats of this kind, upright spiral springs are employed, which are securely tied together at their upper ends and
20 it is necessary to pull the seat to pieces before access can be had to these springs.

My invention consists generally in providing a series of springs, each in the form of half of an ellipse, one end being mounted
25 on a suitable support and the other end connected with the upholstered top of the seat.

In the accompanying drawings, forming part of this specification, Figure 1 is a sectional view of a seat, embodying my invention, Fig. 2 is a top view of the same, with the upholstered cushion removed, Fig. 3 is a detail of one of the springs, Fig. 4 is a detail view of a modified construction of spring, Fig. 5 is a detail view, illustrating in
35 detail the means for securing the canvas at the sides of the seat to the lower rails, Fig. 6 is a detail sectional view, illustrating a modified means for mounting the middle springs in the middle rail of the seat.

40 In the drawing, 2 represents the seat frame having side bars 3 and a middle bar 4.

5 represents the upholstered top of the seat, on the under side of which, along the
45 middle line of the seat, a series of metallic clips 6 are arranged at intervals. Wires 6' are provided on the under side of the edges of the upholstered top or cushion of the seat and are provided at intervals with loops 6'', which engage the loops of the springs, as will hereinafter appear. The springs, which I employ, are arranged in groups. The side rails have sockets 7 therein and slots 8 in their upper surfaces intersecting said sockets, and into the socket 7 the ends 9 of the semi-elliptical springs 10 are inserted. The mid-

dle portions of these springs have loops 11 formed therein and their upper ends have books, which engage the loops 6'' and thereby the springs are held in place. The walls
60 of the slots 8 engage the springs and prevent them from swinging laterally in their sockets. The springs on the opposite side of the seat are arranged in a similar manner. Those in the middle are oppositely arranged
65 from those on the side and have their ends fitting within the sockets 13 in the middle bar and held against lateral oscillation by the slot 14 in the top of said bar. The middle springs engage the clips 6 that are pro-
70 vided under the middle portion of the cushion. The loops formed in the springs, as shown, are right and left hand and in this form will more perfectly resist the tendency toward oscillation, when there is a
75 weight on the cushion. The clips 6 in the middle of the cushion may be formed of sheet metal, as shown, or any other suitable material. In place of using a series of
80 springs of semi-elliptical form, I may provide one of them, as illustrated at 16 in Fig. 4, extending the full length of the seat. In other respects, the construction of the seat will be the same.

The canvas or leather filler 17 between the
85 cushion top and the side rails of the seat frame may be secured to the rails in any suitable manner, but I prefer to fasten several parallel strips 18 on the side of the rails, providing spaces between them, into
90 which the canvas is forced by ribs 19, provided on the outer finished plate 20.

Instead of using the holes in the middle rail of the seat, I may provide a longitudinal slot 21 therein, in which an upright metallic
95 plate 22 is arranged, said plate projecting above the upper ends of the sockets, in which the spring ends are inserted. This construction facilitates the insertion of the
100 spring ends into the sockets.

I claim as my invention:—

1. A seat, comprising a frame, an upholstered top therefor, loops depending from said top, semi-elliptical springs having loops
105 formed therein and each having one end mounted in said frame and its other end in engagement with a loop on said top, middle springs provided on each side of the longitudinal center of said seat and having their loops extending outwardly between the loops
110 of said first-named springs and said middle springs having means for connection with

said frame at one end and attached to said top at their other ends.

2. A car seat, comprising a frame, a cushion top therefor, said frame having sockets
5 therein and slots transversely arranged with respect to said sockets, semi-elliptical springs having ends adapted to fit into said sockets and held against oscillation by the walls of
10 said slots, and clips provided on the under side of said cushion top and adapted to engage one end of said elliptical springs, for the purpose specified.

3. A car seat, comprising a frame, an upholstered top therefor, wires extending
15 lengthwise of said seat and having loops depending from said top, semi-elliptical springs having loops formed therein and each having one end mounted in said frame and its other end in engagement with a loop
20 in said wires, and middle springs provided on each side of the longitudinal center of said seat and having their loops extending outwardly between the loops of said first-named springs, and said middle springs hav-
25 ing means for connection with said frame at one end and attached to said top at their other ends, substantially as described.

4. A spring seat, comprising a frame, an upholstered top therefor, and a filler between

said top and frame, wires secured to said top on the under side thereof and extending lengthwise of the seat and having depending loops formed therein at intervals, and semi-elliptical springs having loops formed
30 therein, and each having one end mounted in said frame and its other end in engagement with a loop in said wires, substantially as described.

5. A spring seat, comprising a frame having a middle bar, an upholstered top and
40 clips secured to said top on the under side, and semi-elliptical springs having right and left hand loops formed in their middle portions and having ends adapted to fit within
45 sockets provided within said middle bar, and also having ends in engagement with the loops on said clips, and said springs projecting laterally on each side of said middle bar toward the edges of the cushion and forming
50 a spring support under the middle portion thereof, substantially as described.

In witness whereof, I have hereunto set my hand this 14th day of January 1909.

FREDERICK HACHMANN.

Witnesses:

RICHARD PAUL,
J. A. BYINGTON.