(No Model.)

H. S. HALE.

CAR SEAT OR CUSHION.

No. 456,764. Patented July 28, 1891.

FIG. 1.

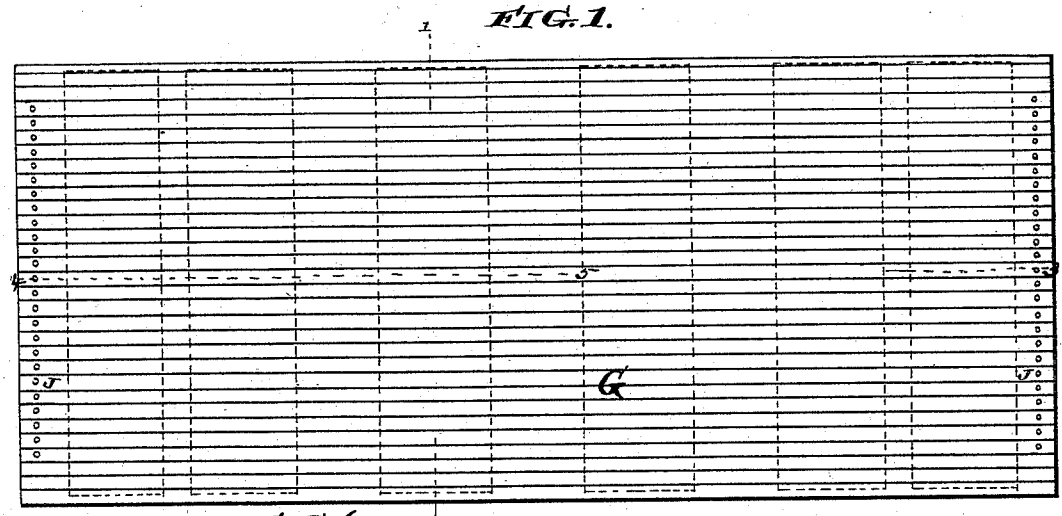


FIG. 4.

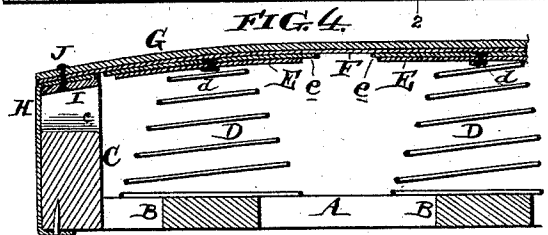


FIG. 5

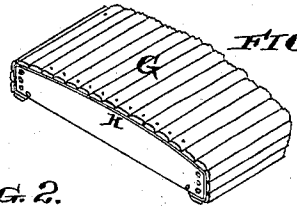


FIG. 2.

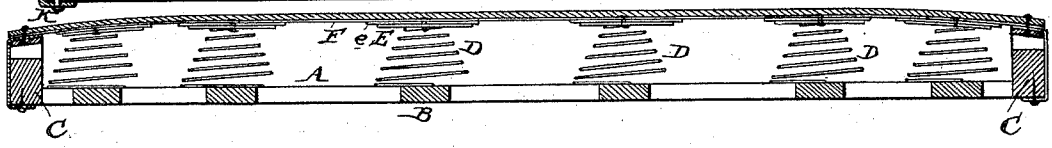


FIG. 3.

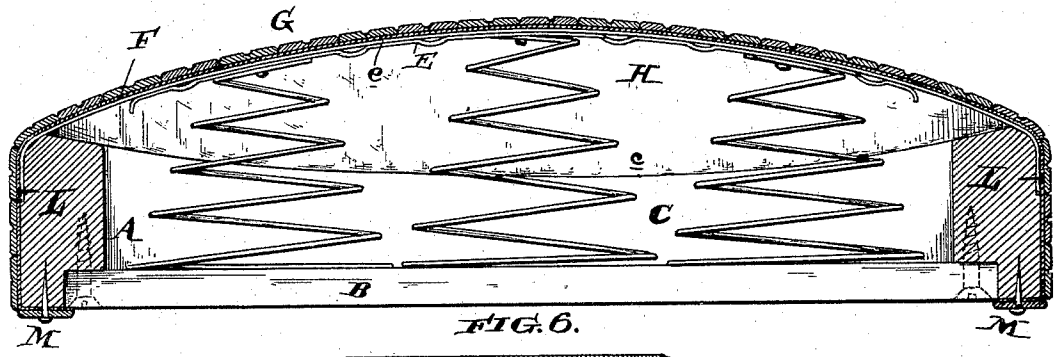
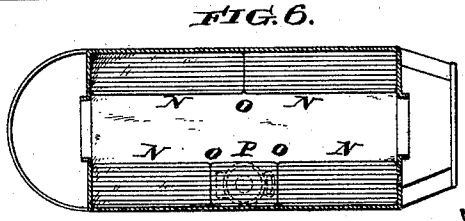


FIG. 6.



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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

HENRY S. HALE, OF PHILADELPHIA, PENNSYLVANIA.

CAR SEAT OR CUSHION.

SPECIFICATION forming part of Letters Patent No. 456,764, dated July 28, 1891.

Application filed June 5, 1891. Serial No. 395,225. (No model.)

To all whom it may concern:

Be it known that I, HENRY S. HALE, of the city and county of Philadelphia, and State of Pennsylvania, have invented an Improvement in Car Seats or Cushions, of which the following is a specification.

My invention has reference to car seats or cushions; and it consists of certain improvements, which are fully set forth in the following specification and shown in the accompanying drawings, which form a part thereof.

The object of my invention is to construct a car-seat which shall embody durability and cheapness, combined with comfort to the sitting upon it and cleanliness.

My invention will be understood by reference to the accompanying drawings, in which—

Figure 1 is a plan view of a seat or cushion embodying my invention. Fig. 2 is a longitudinal section of the same on the line 3 4. Fig. 3 is a cross-section of the same on line 1 2. Fig. 4 is an enlarged view of a portion of Fig. 2, taken on line 4 5. Fig. 5 is a perspective view of one end of the seat or cushion; and Fig. 6 is a sectional plan view of a car-body, showing the usual arrangement of the seats.

The seat is particularly adapted for street-cars in which the cushions are made of considerable lengths and where two or more independent cushions are required for each of the longitudinal seats.

A is the main frame, and is provided with the cross-bars B on the bottom, the front and rear rails L, and the end rails C, the latter being best shown in Fig. 3, and recessed or hollowed out at the middle, as at *c*, so as to give greater possible depression of the upper covering. Arranged upon the cross-bars B is a series of spiral springs D, and upon these spiral springs is secured a metallic strip E, preferably of steel and of great flexibility. Arranged above the metal strip E and parallel with the transverse or cross bars B are webbing or fabric strips *e*, which are also secured to the spiral springs by the same rivets *d* which hold the springs to the metallic strips. There is a series of metallic strips arranged transversely across the length of the seat, as indicated in dotted lines in Fig. 1 and as shown in Fig. 2, each of which strips is sustained by three central springs, as shown in Fig. 3, the middle spring holding the strip at a higher elevation than the two side springs. The webbing or fabric strips are secured at their ends to the side rails L by means of tacks. Stretched above this spring-support is a covering G, composed of a layer of fabric, upon which is glued or otherwise secured a series of thin longitudinal wooden strips, and this material is stretched over the side rails L and secured at M by nails or otherwise. The ends of the covering are free to be depressed to a greater extent than the level of the upper edges of the side rails L, owing to the end of the rails C being recessed or hollowed out, as at *c*. To protect the interior from dust, and also to impart a finish to the seat as well as give more comfort, the free ends of the covering G are secured to a fabric H by means of glue and are further held in place by an inner flexible strip I and rivets or screws J. The lower end of this textile covering H is brought down over the end of the rail C and secured to it at the bottom, as at K, by tacks or otherwise. By this means a finish is given to the seat, and it is securely sealed against the entrance of dust and dirt. When the seats are arranged, as indicated in Fig. 6, I have the juncture O between the two seat-cushions N N or between the three seat-cushions N P N perfectly flexible and just as comfortable to sit upon as the central portion of the cushion itself.

Referring to Fig. 6, the small cushion P is employed to cover the space which in winter time is occupied by a stove. (Shown in dotted lines.)

It is evident that the details of construction might be more or less modified without departing from the principles of the invention.

What I claim as new, and desire to secure by Letters Patent, is—

1. In a seat-cushion, the combination of a main frame having longitudinal side rails L and an end rail C, made with its upper surface at the middle of the seat at a lower elevation than the upper edges of the side rails L, a flexible covering extending between the two sides of the rails and formed of textile material covered with strips of wood, and a spring-support between the said covering and the main frame.

2. In a seat-cushion, the combination of a main frame having longitudinal side rails L and an end rail C, made with its upper surface at the middle of the seat at a lower elevation than the upper edges of the side rails L, a flexible covering extending between the two side rails and formed of textile material covered with strips of wood, a spring-support between the said covering and the main frame, and a flexible covering of textile material between the free edges of the ends of the seat-covering and the end rail, whereby the end of the cushion is sealed against the entrance of dirt, &c.

3. In a seat-cushion, the combination of the main frame having the side rails L and the end rails C, having their upper surfaces depressed or recessed, as at *c*, a series of metallic transverse plates E, springs arranged between each of the plates and the main frame, a textile band or web secured to each of the plates and having the ends united to the side rails, a covering of textile material formed with a surface of wood arranged above the series of textile bands or webs and secured at its ends to the main frame or side rails, and a textile covering at the ends of the seat-cushion uniting the free edges of the covering of textile material and wood with the end rails.

In testimony of which invention I have hereunto set my hand.

HENRY S. HALE.

Witnesses:
R. M. HUNTER,
ERNEST HOWARD HUNTER.