

N. I. RILEY.
 SPRING SEAT.
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1,004,082.

Patented Sept. 26, 1911.

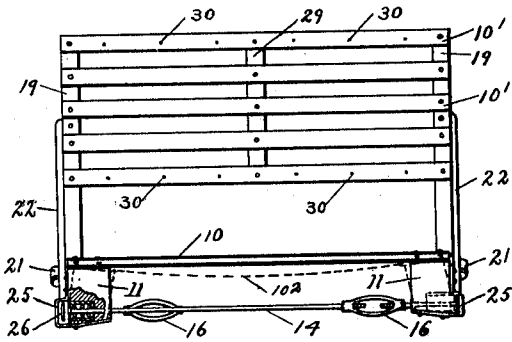


Fig. 3

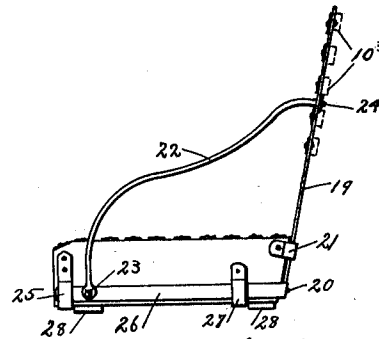


Fig. 4

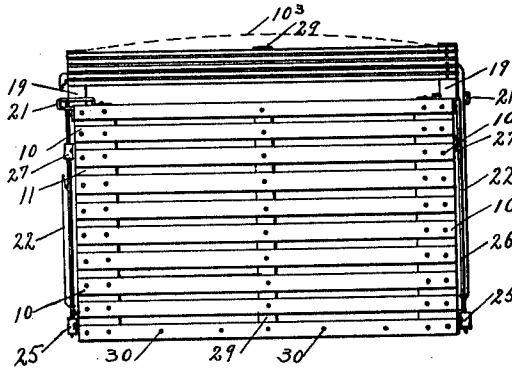


Fig. 1

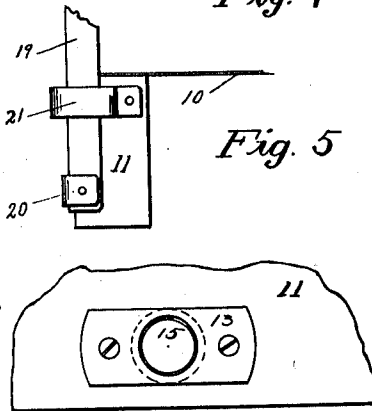


Fig. 5

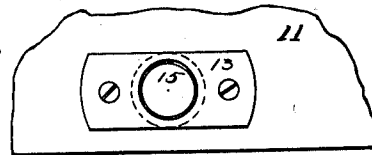


Fig. 6

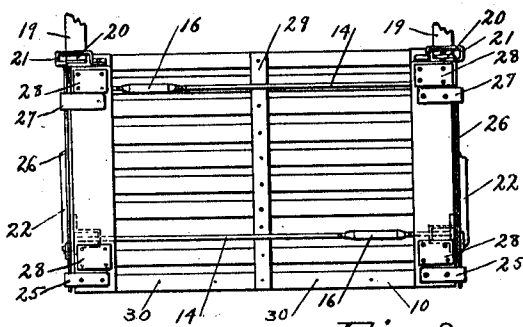


Fig. 2

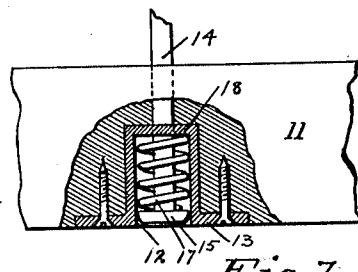


Fig. 7

WITNESSES:

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SPRING-SEAT.

1,004,082.

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To all whom it may concern:

Be it known that I, NATHANIEL I. RILEY, a citizen of the United States of America, residing at Spokane, in the county of Spokane and State of Washington, have invented certain new and useful Improvements in Spring-Seats, of which the following is a specification.

This invention pertains to spring seats and has for its object to provide a substantial and durable spring seat for drivers and passengers on vehicles.

The invention is especially valuable to locomotive engineers, motormen and drivers of dray and freight wagons. A modified form of the invention as shown in the drawings is especially valuable to motormen on electric street cars and the like as a foot cushion.

In the accompanying drawings I have shown the application of the invention as a spring seat.

Figure 1, is a top view of the seat and back complete, Fig. 2, is a bottom view thereof with back broken-away, Fig. 3, is a combined front and sectional view of the seat and back complete, Fig. 4, is a side view thereof, Fig. 5, is a detail view of the end of one of the bottom supports together with the mechanism whereby the back of the seat is connected therewith, Fig. 6, is a broken-away side view of one of the bottom supports together with an end view of the head of a bolt extending there-through and of a plate extension leading from a tube inserted in a bore in the support. Fig. 7, is a combined top and sectional view of Fig. 6 and disclosing a coil spring and a broken-away view of a rod extending horizontally through the support.

Steel strips 10 paralleling each other are arranged horizontally and secured to the supports 11. Tubes 12 with plate extensions 13 are set into bores in the sides of the supports 11. Rods 14 with heads 15 on each end connect the supports 11 at positions underneath the horizontally arranged steel strips 10, such rods being provided with turn-buckles 16 intermediate the ends thereof, and coil springs 17 encircling the same at their ends. The rods 14 pass through the inner sides of the supports 11 and the inner ends of the tubes 12 and the coil springs 17

encircle the same between the heads 15 thereof and the inner ends 18 of the tubes 12.

The back of the seat consists of horizontally arranged steel strips 10¹ secured to the uprights 19 pivoted to the supports 11 as at 20. The uprights 19 extend through the loops 21 secured to the supports 11 in which they have a lateral play. The steel strips 10 and 10¹ are made of such width and thickness as to readily give under the weight of a man so as to have a springing effect. For instance, the strips 10 would give downwardly under a man's weight to approximately the position shown by the dotted line 10² and the strips 10¹ to approximately the position shown by the dotted line 10³.

The back of the seat composed of the horizontally arranged strips 10¹ and the uprights 19 is supported by the side arms 22 secured to the front ends of the supports 11, and the uprights 19 as at 23 and 24 respectively. The horizontal supports 26 to which the back of the seat is secured are loosely engaged by the strips 25 and 27 secured to the supports 11 as a means of connecting the relative parts without interfering with the free action of the springs.

I have shown the complete structure mounted upon feet 28.

Connecting slats 29 may be used to bind the steel strips 10 and 10¹ intermediate the ends thereof. Openings 30 may be made in the steel strips 10 and 10¹ whereby pads may be secured to the seat and back respectively.

The coil springs 17 at the ends of the rods 14 furnish a force to return the steel strips 10 to the horizontal after the weight upon the seat has been removed, and the coil springs and steel strips cooperating and in conjunction with the connecting mechanism give a general cushion effect to the seat. The loops 21 permit of a free lateral sway of the supports 11 occasioned by the rocking of the same in connection with the vertical sway of the steel strips 10, unhindered by the uprights 19 passing through the same.

Having thus described my invention what I claim as new and useful and desire to secure by Letters-Patent, is,

A spring seat composed of horizontally arranged steel strips secured to supports underneath the same and arranged at right an-

gles therewith, such supports provided with bearings and being connected to each other by means of adjustable rods provided with heads at each end and springs engaging the same between the heads and the bearings in the supports, such seat having a back composed of horizontally arranged steel strips secured to uprights at right angles therewith pivoted to the seat supports and loosely

engaged by loops secured to such supports in which loops such uprights have a lateral play. 10

In testimony whereof I affix my signature in presence of two witnesses.

NATHANIEL I. RILEY.

Witnesses:

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