(No Model.)

# T. C. DAVIS.

## CAR SPRING.

No. 385,918. Patented July 10, 1888.

Fig. 1

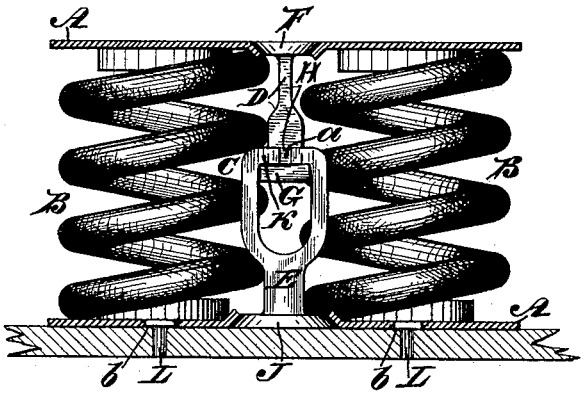



Fig. 2.

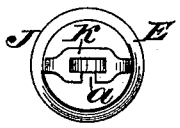
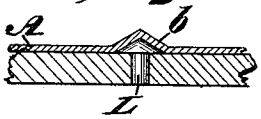



Fig. 3.

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THOMAS C. DAVIS, OF PHILADELPHIA, PENNSYLVANIA.

## CAR-SPRING.

SPECIFICATION forming part of Letters Patent No. 385,918, dated July 10, 1888.

Application filed August 4, 1887. Serial No. 246,113. (No model.)

*To all whom it may concern:*

Be it known that I, THOMAS C. DAVIS, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Car-Springs, which improvement is fully set forth in the following specification and accompanying drawings.

My invention relates to improvements in car-springs; and it consists of novel means for connecting the plates between which the springs are interposed.

It also consists of novel means for preventing lateral displacement of the car-spring from the spring-seat.

Figure 1 represents a partial side elevation and partial vertical section of a car-spring embodying my invention. Fig. 2 represents a top view of a detached portion thereof. Fig. 3 represents a section of a modification.

Similar letters of reference indicate corresponding parts in the several figures.

Referring to the drawings, A represents the upper and lower spring-plates; B, the springs which are interposed between said plates, and C the connecting devices of said plates, whereby the parts of the spring are held intact, said devices consisting of a bar, D, and link E, the bar D having heads F G at opposite ends, and a neck, H, as shown. The link E has a head, J, at its lower end, and a slotted cross-bar, K, at top, the side of said bar having a throat, *a*, in its side to admit the neck H of the bar D, whereby the bar and link may be connected. The head F of the bar D is seated on the upper spring-plate A and the head J of the link on the lower spring-plate. When the springs are primarily compressed, the neck H of the bar D is passed through the throat *a*, whereby the shank of the bar enters and occupies the slot of the cross-bar K, and the head G bears against the under side of said cross-bar, thus connecting the bar D and link E, so that separation of the spring-plates A is prevented. When the spring is loaded or in service, the bar and link follow the motion of the plates A, it being noticed that the shank of the bar D and cross-bar K of the link E play freely on each other without disconnection, and thus the parts of the spring are held intact.

In order to retain the spring in position on the spring-seat of a car, I employ bolts L, which are secured to said seat and have their heads fitted in the lower spring-plate A, by which provision lateral displacement and shifting of the spring is prevented.

The spring may be readily removed by raising it clear of the heads of the bolts.

In Fig. 3 the spring-plate is shown with a raised portion, *b*, to receive the head of the bolt L, said portion being employed in lieu of the opening *b*. (Shown in Fig. 1.)

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

1. The connecting device for the plates of a car-spring, consisting of a bar having a head at each end and a neck, and a link with a head at one end and a slotted cross-bar at the other end, substantially as described.

2. The plates A A, in combination with the bar D, having the head G and neck H, and the link E, having the head J at one end, and the slotted cross-bar K, with the opening *a* at the side, leading into said slot at the other, substantially as described.

3. A car-spring having its lower plate provided with a raised portion, in combination with a seat having a bolt therein, the head of which corresponds to and fits in said raised portion of the plate of the spring, substantially as and for the purpose set forth.

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Witnesses:
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