UNITED STATES PATENT OFFICE.

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SPRING-SEAT FOR VEHICLES.

SPECIFICATION forming part of Letters Patent No. 232,098, dated September 7, 1880.

Application filed July 17, 1880. (No model.)

To all whom it may concern:

Be it known that we, MICHAEL J. ZEIMET and HENRY C. BRAND, citizens of the United States, residing at Sheboygan, in the county of Sheboygan and State of Wisconsin, have invented certain new and useful Improvements in Spring-Seats for Vehicles; and we 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 appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

Our invention relates to improvements in spring-supports for carriage-seats.

It is obvious that to support or carry a person upon a spring-supported seat with the greatest ease the tension or resisting force of the spring or springs should be greater or less according to the weight to be carried upon them, a heavy or tense spring being too inflexible to carry a single person with an easy motion, while a light spring adapted to one person may prove incapable of supporting two or more persons.

The object of our improvement is to provide a device whereby all seats may be adapted to the weights they are required to carry.

A further object of our improvement is to provide a device for adjusting the seat higher or lower to accommodate it to the convenience and comfort of the occupant.

Our invention is further explained by reference to the accompanying drawings, in which Figure 1 represents a front view as attached to the seat and vehicle. Fig. 2 is a longitudinal section of one of the supports detached. Fig. 3 represents the seat as partially detached. Fig. 4 is a detail of the fastening device by which the support is secured to the vehicle.

Like parts are represented by the same reference-letters.

A duplicate of the support described is attached to each end of the seat.

A represents the carriage-seat, which is secured at its respective ends to the adjustable supporting-arms B B. The arms B B are provided with a vertical opening, centrally located between their extreme ends, for the reception of standard C, which is loosely fitted therein and permits the arms to be raised or lowered upon the standards, whereby the seat is adjusted at any point desired.

D is a set-screw for securing the arms B B to the standard C where adjusted. E are recesses in the standard C for the reception of the end of the set-screw. F, G, and H are supporting-springs.

I and J are stationary standards. They are connected rigidly together and retained in their proper relative position to each other by bars K and L. The standard C has a free reciprocating movement upward and downward through the bars K and L, conforming to the action of the springs.

The weight upon the seat is thrown equally upon all the springs by means of the bar M, which rests upon and moves upward and downward with them. A shoulder, N, is formed in the standard C, which rests upon the bar M. Thus when the bar C is pressed downward it carries with it the bar M, which bar rests upon and compresses the several springs F G H.

The standard C is loosely fitted in the bars K L M, and may be readily withdrawn from them by removing the nut O.

When the tension of the three springs proves too great for the weight of the person to be supported, it may be diminished by first removing the central spring, G, which is done by removing the nut O and withdrawing the standard C, when the seat will be supported by the two side springs, F and H. To adjust the device for a still lighter person the two side springs, F H, may be removed, when the seat will be supported solely by the central spring. When required to support a greater weight all the springs are retained, as shown.

The bar K is provided with lugs P P and the bar L is provided with lug R, by which the device is attached to the respective sides of the carriage.

If desirous to remove the seat for the purpose of loading the vehicle or removing its contents, it may be raised upward and withdrawn by simply removing the nuts O, when the arms B and standard C are drawn from the frame, and, if desired, one end of the seat may be raised free from its supporting-frame and the seat turned around over the side of the vehicle, when it will remain supported by the other standard.

Having thus described our invention, what

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

1. The device herein described for supporting carriage-seats, consisting in the combination of standards I J and bars K L, rigidly secured together, standard C, the upper portion being of greater diameter than the lower, the lower portion being adapted to pass through the bars M and L and the upper portion to pass through bar K only and rest upon bar M, springs F, G, and H, adapted to support the seat and be temporarily removed from and replaced beneath it, substantially as specified.

2. The combination of the standard C, supported by one or more springs upon the bar M, bars K and L, and arms B B, adapted to be adjusted higher or lower by set-screw D, substantially as specified.

3. The device herein described, consisting in the combination of seat A, adjustable arms B, removable standard C, bars K L M, standards I J, and springs F G H, all substantially as and for the purpose specified.

In testimony whereof we affix our signatures in presence of two witnesses.

MICHAEL J. ZEIMET.
HENRY C. BRAND.

Witnesses:
JAS. B. ERWIN,
E. G. ASMUS.