

S. P. GRAHAM.

Improvement in Carriage-Seats.

No. 115,842.

Patented June 13, 1871.

Fig 1.

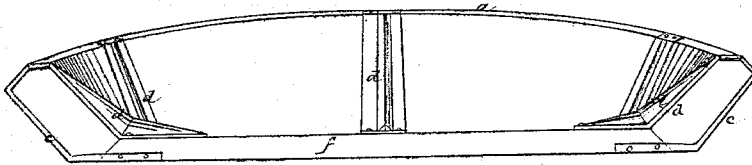


Fig 2.

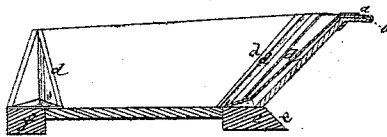


Fig 3.

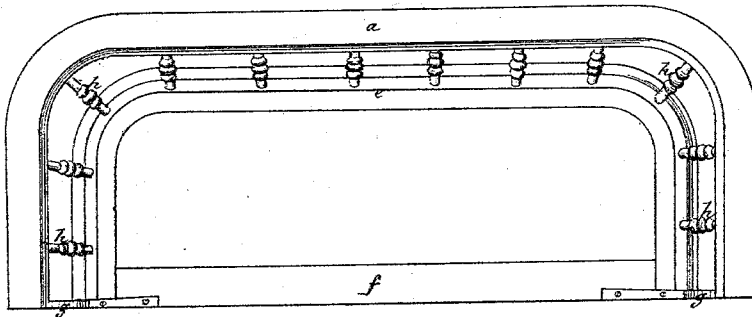


Fig 4.



Witnesses:

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# UNITED STATES PATENT OFFICE.

SIMON PETER GRAHAM, OF LONDON, CANADA.

## IMPROVEMENT IN CARRIAGE-SEATS.

Specification forming part of Letters Patent No. 115,842, dated June 13, 1871.

*To all whom it may concern:*

Be it known that I, SIMON PETER GRAHAM, of London, in the county of Middlesex and Dominion of Canada, have invented a new and Improved Carriage-Seat; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawing making a part of this specification, in which—

Figure 1 is a front elevation of that variety of seat in which wooden or iron panels are used. Fig. 2 is a transverse vertical section of the same. Fig. 3 is a plan view of that variety of seat in which spindles are used; and Fig. 4 is a detached view of one of the hollow spindles.

This invention relates to sundry improvements in the rails, bottom, spindles, and pillars of carriage-seats, all tending toward increased simplicity and cheapness of construction.

Referring to the drawing, the first improvement is in the top rail *a* of the seat, which is to be made of one strip of sheet metal bent so as to inclose an iron or steel wire or rod, *b*, at the back of the rail, which rod *b* extends outward from each end of the sheet-metal envelope far enough to form the side handles *c*, this forming a neater, cheaper, and better finish than the ordinary method of attaching side handles to buggy-seats. This top rail will answer the same purpose if rolled out of solid iron. When wooden panels are used between the rail and bottom of the seat, the rail is formed with a recess in its inner edge to receive the upper edges of the panels, by which arrangement both the rails and panels are strengthened. When iron panels are used, their upper edges project within the laps of the rail, rendering the recess unnecessary. My second improvement relates to the plates *d*, which form both the corner-irons and the pillars or back-supporters of the seats. The plates are stamped up out of sheet metal. The corner-

irons can have laps turned back at their front edges to receive the wooden panels and make a finish. My third improvement relates to the bottom *e* of the seat, which can be made either by taking a solid piece of tough timber and sawing one or more longitudinal kerfs inward from each end far enough to clear the corners to be bent, and then steaming and bending the piece to the proper shape, and doweling the divided ends together; or, by taking two or more strips of timber, of which the inner ones should be thinner than the outer, laying them together, steaming and bending them, and doweling when dry. This forms the ends and back of the bottom frame, and the front consists of a cross-piece, *f*, framed at its ends into the piece *e*. By this method glued joints are dispensed with, cross-grained lumber avoided, and additional strength received. My fourth improvement relates to a solid iron rail, *a*, made in one piece with the handles *c* and corner-irons *g*, and combined with spindles *h*, said rail to be used instead of the sheet-metal one when spindles are employed. My fifth improvement relates to the spindles *h*, made out of sheet metal stamped each in two halves, which are then soldered together, having the inside hollow, making strong, cheap, and light spindles.

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

1. The sheet-metal top rail *a*, combined with the rod *b*, made in one piece with the side handles *c*, as specified.

2. The improved carriage-seat, constructed of the several parts, combined, and arranged as herein shown and described.

SIMON PETER GRAHAM.

Witnesses:

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