

L. E. NUTT.  
SHIFTING RAIL CONSTRUCTION.  
APPLICATION FILED APR. 21, 1911.

1,021,553.

Patented Mar. 26, 1912.

2 SHEETS—SHEET 1.

4

Fig. 1.

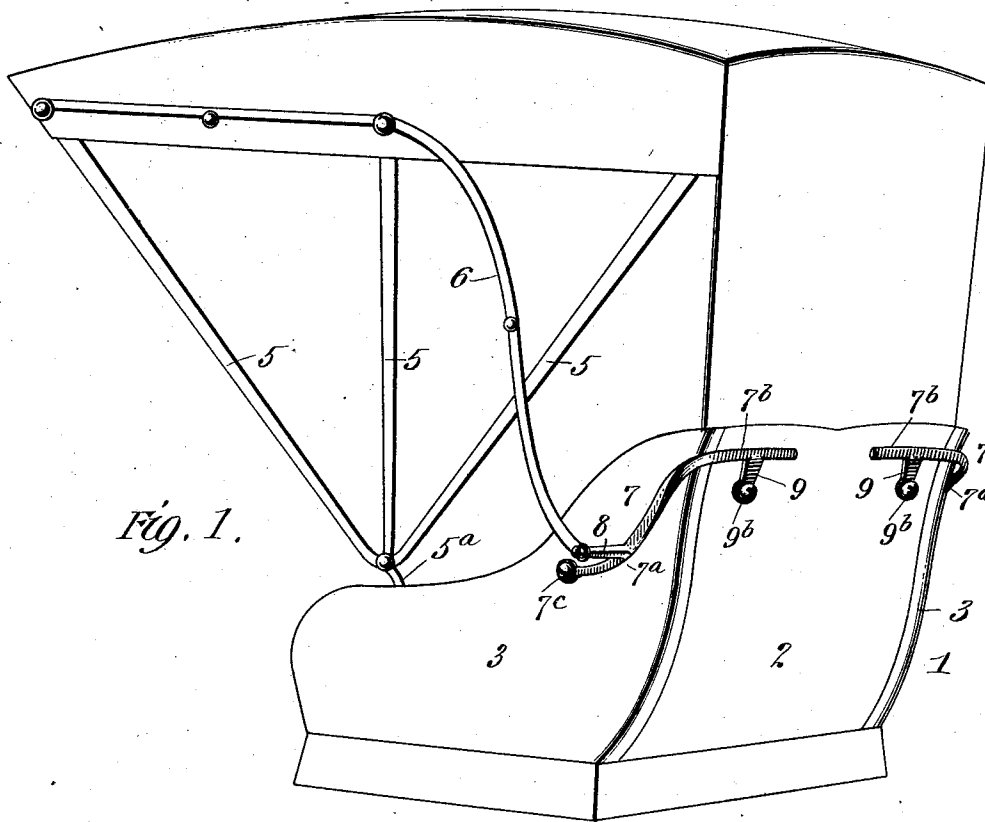
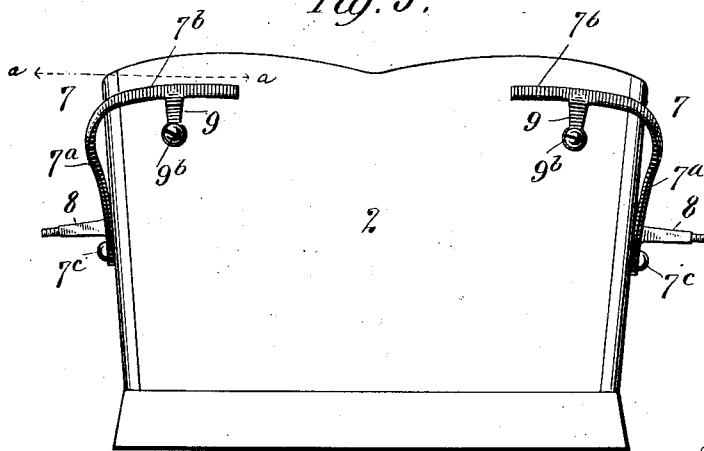


Fig. 3.



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By his Attorneys  
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2 SHEETS-SHEET 2.

Fig. 2.

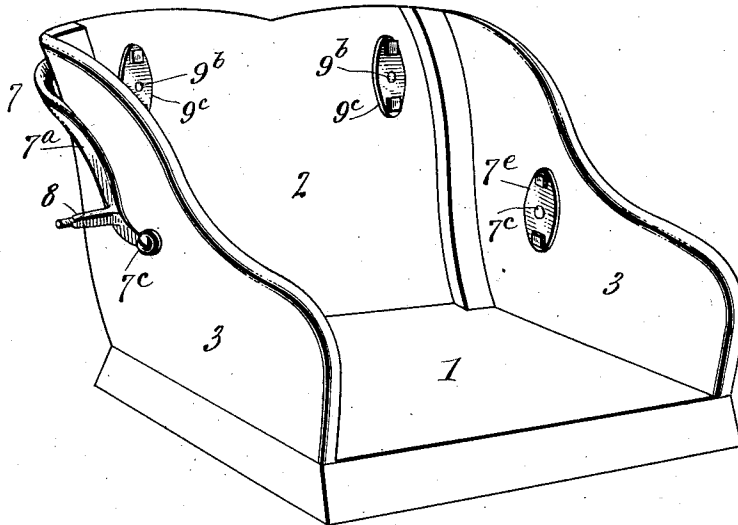


Fig. 4.

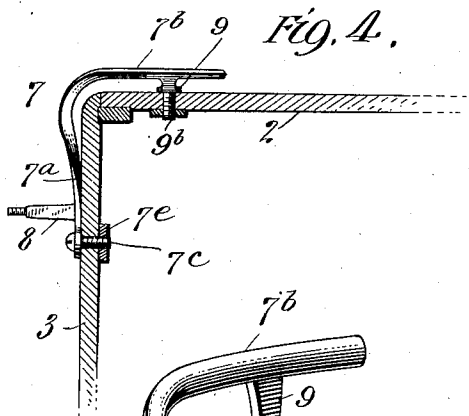
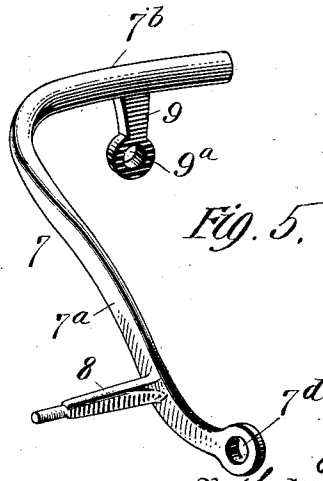


Fig. 5.



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# UNITED STATES PATENT OFFICE.

LESTER E. NUTT, OF MOLINE, ILLINOIS, ASSIGNOR TO VELIE CARRIAGE COMPANY, A CORPORATION OF ILLINOIS.

## SHIFTING-RAIL CONSTRUCTION.

1,021,553.

Specification of Letters Patent. Patented Mar. 26, 1912.

Application filed April 21, 1911. Serial No. 622,603.

*To all whom it may concern:*

Be it known that I, LESTER E. NUTT, a citizen of the United States, residing at Moline, in the county of Rock Island and State of Illinois, have invented certain new and useful Improvements in Shifting-Rail Constructions, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to shifting rail constructions, employed in connection with vehicle seats to serve as a means for attaching the folding top.

In accordance with my present invention the bows of the folding top are connected with the side panels of the seat, while the folding braces are given support by two separate shifting rail members of improved form, arranged at the rear corners of the seat, each member comprising a forward arm connected to the side panel, and a rear arm extending inwardly from the forward arm at the back of the seat and connected thereto, the form of these members and their manner of attachment to the side panels and back respectively being such, that the strains on the members due to the connection of the folding braces therewith and the weight of the top when folded back, will tend to draw the side panels up against the back and thereby strengthen the seat at this point and prevent separation of the parts of the same.

In the accompanying drawings: Figure 1 is a rear perspective view of a vehicle seat and folding top applied thereto, and having my invention embodied therein. Fig. 2 is a front perspective view of the seat with the top removed. Fig. 3 is a rear elevation of the same. Fig. 4 is a horizontal sectional plan view on the line *a-a* of Fig. 3. Fig. 5 is a perspective view of one of the shifting rail members.

Referring to the drawings: 1 represents a vehicle seat having the usual back 2 and side panels 3, and 4 represents a folding top provided with the usual bows 5 and folding braces 6. The bows are jointed at their lower ends to and given support by brackets or clips 5<sup>a</sup> fixed to the side panels near their forward ends; and the folding braces are connected to and given support by two shifting rail members 7—7 applied respectively to the rear corners of the seat and constituting the main feature of my invention. Each of these shifting rail members, one of

which is applied to each corner of the seat at its rear, is preferably in the form of a forging having two arms, a forward arm 7<sup>a</sup> adapted to extend along the side of the panel adjacent its junction with the back of the seat, and a rear elevated arm 7<sup>b</sup> extending laterally from the rear end of the arm 7<sup>a</sup> and adapted to extend along the back of the seat adjacent its junction with the panel. The forward arm 7<sup>a</sup> is secured to the side panel preferably in a detachable manner by a bolt 7<sup>c</sup>, which bolt is seated in an eye 7<sup>a</sup> in the arm, passes through the panel, and is threaded into a casting 7<sup>c</sup>, bolted, or otherwise secured to the inner surface of the panel. From the point of attachment of the arm to the panel, the arm extends a short distance rearwardly and then obliquely upward, a laterally projecting supporting stud 8 being provided at the junction of the rearwardly extending portion of the arm with the upwardly extending portion of the same. The rear arm 7<sup>b</sup> of the shifting rail member is extended inwardly from the corner of the arm 7<sup>a</sup>, and terminates a short distance from the corner of the seat. Adjacent to its extremity the arm is provided with a downwardly extending lug 9, provided with an eye 9<sup>a</sup>. A bolt 9<sup>b</sup> seated in said eye, passes through the back panel 2, and is threaded into a casting 9<sup>c</sup>, bolted or otherwise secured to the inner surface of the back. The folding braces 6 before alluded to, are jointed at their inner ends to the supporting studs 8 of the shifting rail members, which studs are of such length and so related to the bows, that the latter will be supported by the studs when the top is folded back.

From the construction described, it will be seen that the bows supporting the top are connected to and supported by the side panels of the seat independently of the shifting rail members, the latter, however, taking the entire weight of the top when it is folded down, and also taking the strains due to the thrust of the folding braces. By reason of the form of these shifting rail members and their points of attachment to the back and side panels respectively, the strains received by the said members will tend to draw the side panels inwardly against the back, these strains operating from the points of connection of the rear arms with the back as fulcrums and causing the forward arms to apply a pressure inwardly on the panels

at the points where they are connected therewith. By reason of this action, the shifting rail members act to greatly strengthen the seat at its corners and effectually overcome the objectionable parting or loosening of the sides from the back, so prevalent in constructions now in general use. The two members are entirely separated from each other and attached to the side panels and back adjacent the rear corners of the seat, their attachment being such that they may be readily removed when the top is to be taken off. The construction is simple, neat in appearance, and of great effectiveness in operation in bracing and strengthening the seat at its weakest points, in giving firm and rigid support to the folding braces when the top is extended, and in giving entire support to the top when folded back.

While in the accompanying drawings and foregoing description I have set forth my invention in the specific and detailed form which I prefer to adopt, and which in practice has been found to answer to a satisfactory degree the results to be attained, it is to be understood that my invention is not limited to any particular form or construction of the parts, except in so far as such limitations are specified in the claims.

Having thus described my invention, what I claim is:

1. In combination with a vehicle seat, a shifting rail member applied around the corner of the seat at the rear to give support to the folding brace, said member comprising a side arm extending at the side of the side panel and firmly connected therewith, and terminating in rear of the front of the seat and provided with means for the attachment of the top folding brace, and a rear arm extending transversely inwardly from the rear end of the side arm, in rear of the back panel and connected with the back

panel at a higher level than the point of connection of the side arm with the side panel.

2. In combination with a vehicle seat, a shifting rail member applied around the corner of the seat at the rear to support the top brace, said member comprising a forwardly and downwardly extending side arm disposed at the side of the side panel and terminating in rear of the front of the seat, and firmly connected at its front end to the said side panel, said side arm having a laterally extending stud for the attachment of the top folding brace and a rear arm extending laterally inward from the upper end of the side arm in rear of the back panel, and connected with said back panel at a higher level than the connection of the side arm with the side panel.

3. In combination with a vehicle seat, a shifting rail member applied around the corner of the seat at the rear, and adapted to support the top brace, said member comprising a forwardly and downwardly extending side arm disposed at the side of the side panel with its end terminating in rear of the front of the seat and firmly connected to the side panel, and a rear arm extending inwardly from the upper end of the side arm in rear of the back panel, said rear arm being provided with a downwardly extending lug firmly connected at its lower end with the back panel, and a stud projecting laterally from the side arm and adapted to have the top brace jointed thereto, the said stud being arranged to give support to the bows when the top is folded back.

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

LESTER E. NUTT.

Witnesses:

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