(No Model.)

M. D. SCHALLER.

WAGON SEAT LOCK.

No. 420,701. Patented Feb. 4, 1890.

Fig. 1.

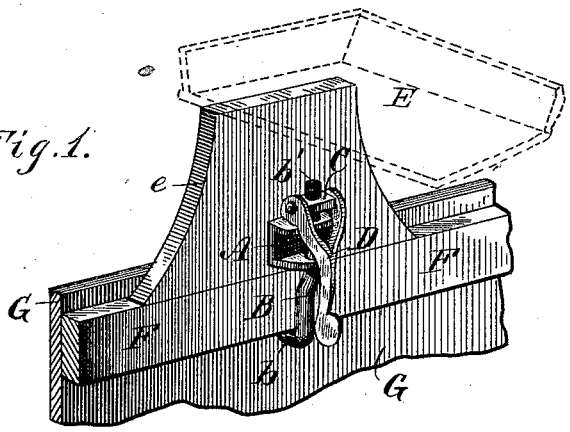


Fig. 2.

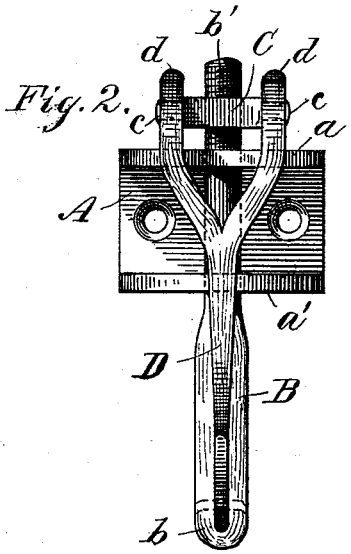
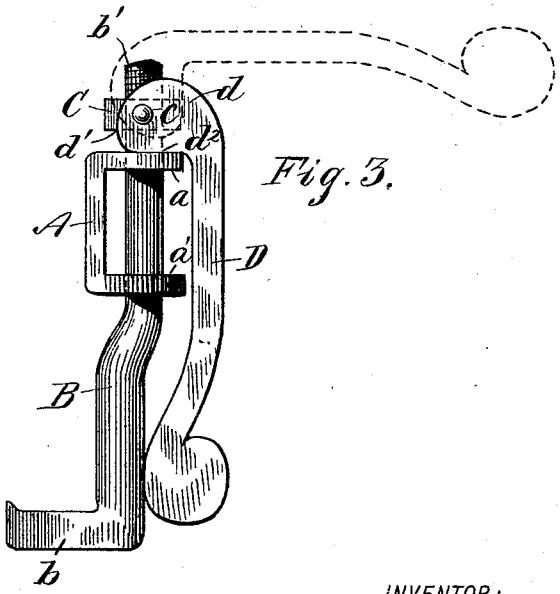


Fig. 3.



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WAGON-SEAT LOCK.

SPECIFICATION forming part of Letters Patent No. 420,701, dated February 4, 1890.

Application filed November 12, 1889. Serial No. 330,004. (No model.)

To all whom it may concern:

Be it known that I, MICHAEL D. SCHALLER, of Lowell, in the county of Oneida and State of New York, have invented a new and Improved Wagon-Seat Fastening, of which the following is a full, clear, and exact description.

This invention relates to a fastening for securing seats to wagon or vehicle bodies in an efficient manner and at any required adjustment; and the invention has for its object to provide a simple, inexpensive, and durable fastening of this character.

The invention consists in certain novel features of construction and combinations of parts of the wagon-seat fastening, all as hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a detail perspective view of part of a wagon body and seat, illustrating how the seat is secured by my improved fastening. Fig. 2 is an elevation of the seat-fastening removed from the wagon-body and drawn to a larger scale; and Fig. 3 is an elevation of the fastening at right angles to Fig. 2, and shows in dotted lines the cam-lever raised to unlock the fastening.

In its preferred form or construction the seat-fastening consists of but four parts, all made preferably of metal and comprising a support or bracket A, the clamp rod or bar B, a nut C, run upon the upper screw-threaded end of the clamp-rod, and a cam-lever D, fulcrumed or pivoted to the nut and adapted for action on the upper flange of the support or bracket, as hereinafter more fully explained.

It will be understood that one of these fastener devices is to be applied to the seat and wagon-body at each end of the seat to hold it to opposite sides of the body. The support or bracket A is fixed, preferably by screws, to the inner face of the end riser *e* of the seat E a little above the seat-rail F, which is fixed to the side of the wagon-body G near its top, so that the lower hook end *b* of the fastening clamp-rod B may hook under the seat-rail, while the seat-riser rests on top of the rail.

In the preferred form of the parts of the fastener I provide the support A with a couple of screw-receiving holes, (best seen in Fig. 2 of the drawings,) and also with upper and lower flanges *a a'*, in which the upper part of the clamp-rod B is fitted loosely for vertical movement. The lower heavier part of the clamp-rod, which carries the inbent clamp hook or head *b*, is bent so as to bear on the face of the seat-rail, while the hook engages the lower edge of the rail. The upper end of the clamp-rod is preferably screw-threaded to receive the nut or nut-plate C, to which the forked cam-lever head or heads *d d* are pivoted or fulcrumed eccentrically by pins *c c*, which are preferably fixed to opposite edges of the nut. This provides the lever D with two cam-heads, one bearing on the supporting-bracket flange *a* at each side of the clamp-rod and assuring an evenly-balanced direct upward pull on the clamp-rod by the lever. Each cam *d* has a face *d'* eccentric to its pivot *c*, and a substantially flat locking edge or face d^2, ranging about at right angles with the main body of the lever.

The operation of the seat-fastener is very simple and effective, as follows: When the cam-levers of both seat-fasteners are swung upward, the seat E may be slid freely along the wagon-body rails to the desired position, and when the nuts C of the fastener clamp-rods are adjusted to proper positions thereon the cam-levers D of both fasteners will be swung down, which carries their eccentric faces *d'* around on the support-flanges *a*, and draws the clamp-rod hooks *b* firmly to the under sides or edges of the opposite wagon-seat rails F to bind the seat thereto, and as the clamping action is most effective the highest parts of the acting faces of the cams will turn on the support-flanges *a* to allow the flat parts d^2 of the cams to come down flat upon the flanges, and thereby lock the cam-levers in lowermost clamping positions to secure the seat until it is again required to be moved, which can be done only after the cam-levers are swung upward again, as indicated in dotted lines in Fig. 3 of the drawings.

It is manifest that by vertically shifting the clamp-rod B, either by turning the cam-lever nut up or down on its threaded end *b'* or by turning the clamp-rod in the nut, every necessary adjustment may be made to accom-

modate inequalities in or wear of the wagon-seat rails or risers, or wear of the acting faces of the cam-levers or other parts of the fastener devices; hence a positively tight clamping of the seat to the wagon-body is always assured.

I am not limited to using a cam-lever having a forked or double cam-head, nor to a nut-fulcrum having adjustment on a threaded end of the clamp-rod; but I consider these constructions the most suitable and satisfactory, and therefore prefer them in carrying out the invention.

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

1. The combination, in a seat-fastening, of a support on the seat-riser, a headed rod guided in said support and clamping the seat-rail, a fulcrum-piece on the clamp-rod and below the seat proper, and a cam-lever pivoted to the fulcrum-piece and operating in vertical plane, and adapted to tighten or loosen the clamp-rod, substantially as herein set forth.

2. The combination, in a seat-fastening, of a support on the seat-riser, a headed rod guided in said support and clamping the seat-rail, a fulcrum-piece on the clamp-rod and below the seat proper, and a lever pivoted to the fulcrum-piece and having a forked double cam-head acting on the support at each side of the clamp-rod to fasten the seat, substantially as herein set forth.

3. The combination, in a seat-fastening, of a support on the seat-riser, a headed rod guided in said support and clamping the seat-rail and having a screw-threaded end, a nut on the clamp-rod, and a cam-lever fulcrumed to the nut and operating in vertical plane, and adapted to tighten or loosen the clamp-rod, substantially as herein set forth.

4. The combination, in a seat-fastening, of a support on the seat-riser, a headed rod guided in said support and clamping the seat-rail and having a screw-threaded end, a nut on the clamp-rod, and a lever fulcrumed to the nut and having a forked double cam-head acting on the support at each side of the nut, and adapted to tighten or loosen the clamp-rod, substantially as herein set forth.

5. The combination, in a seat-fastening, of a support on the seat-riser, a headed rod guided in said support and clamping the seat-rail, a fulcrum-piece on the clamp-rod and below the seat proper, and a cam-lever pivoted to the fulcrum-piece and operating in vertical plane, and provided with an eccentric face d' and a locking-face d^2, substantially as herein set forth.

6. The combination, in a seat-fastening, of a support A, a hook-headed and screw-threaded clamp-rod B, held therein, a nut C on the rod, and a cam-lever D, fulcrumed to the nut and operating in vertical plane, substantially as herein set forth.

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