

(No Model.)

2 Sheets—Sheet 1.

A. G. BRUNSMAN & H. H. UCKOTTER.

LAZY BACK FOR VEHICLE SEATS.

No. 481,745.

Patented Aug. 30, 1892.

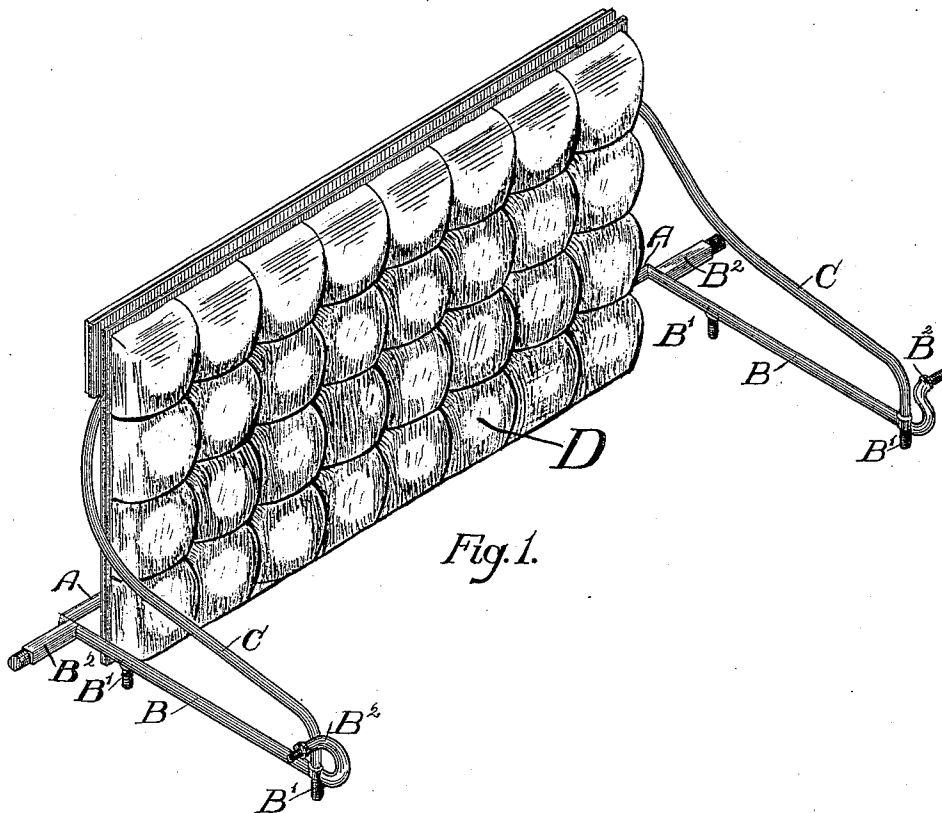


Fig. 1.

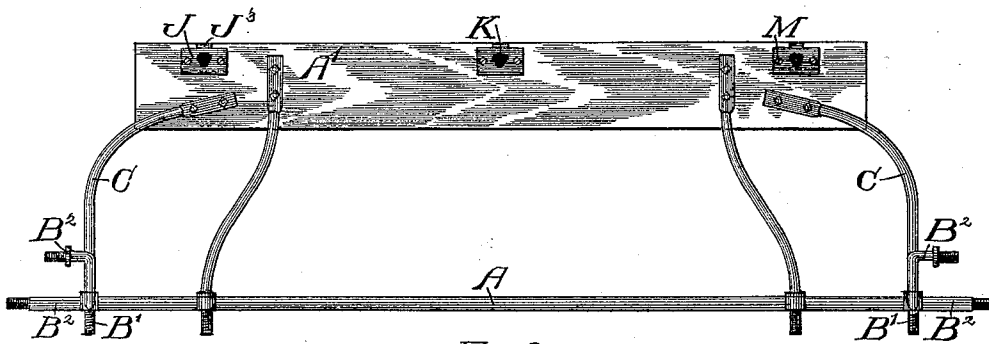


Fig. 2.

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per Wm. Hubbell Fisher,
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2 Sheets—Sheet 2.

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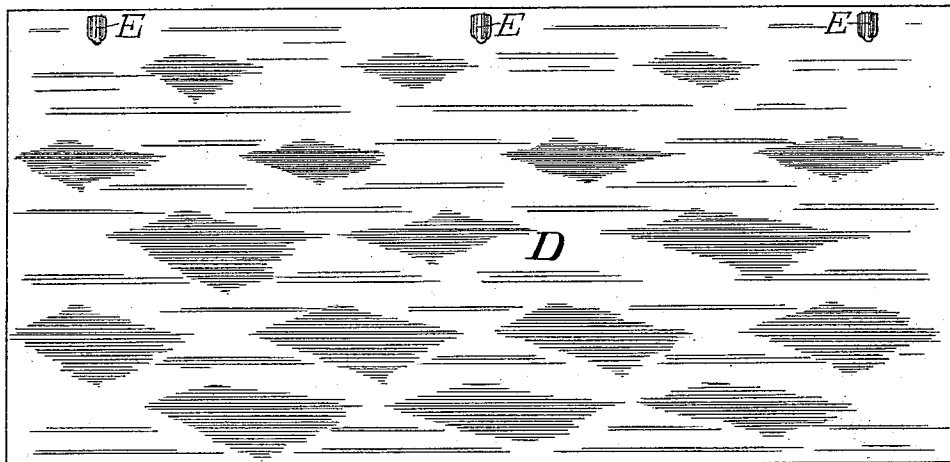


Fig. 3.

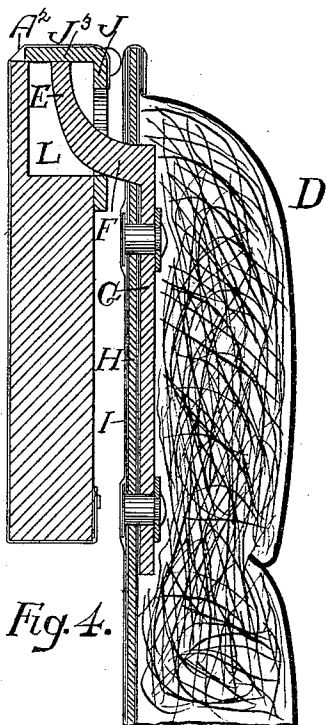


Fig. 4.

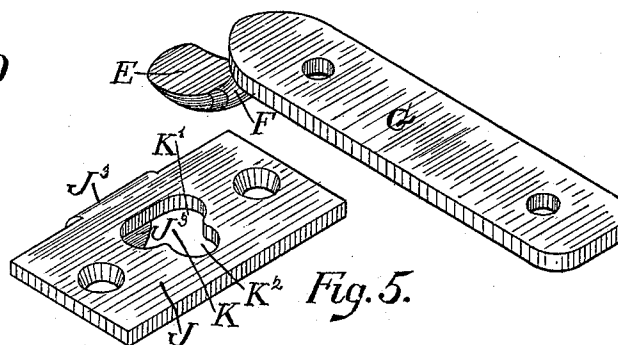


Fig. 5.

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UNITED STATES PATENT OFFICE.

ANTHONY G. BRUNSMAN AND HERMAN H. UCKOTTER, OF CINCINNATI, OHIO.

LAZY-BACK FOR VEHICLE-SEATS.

SPECIFICATION forming part of Letters Patent No. 481,745, dated August 30, 1892.

Application filed December 26, 1891. Serial No. 416,128. (No model.)

To all whom it may concern:

Be it known that we, ANTHONY G. BRUNSMAN and HERMAN H. UCKOTTER, citizens of the United States, and residents of Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Lazy-Backs for Vehicles, of which the following is a specification.

The several features of our invention and the various advantages resulting from their use, conjointly or otherwise, will be apparent from the following description and claims.

In the accompanying drawings, making a part of this specification, and to which reference is hereby made, Figure 1 is an isometric view of a lazy-back constructed according to our invention. Fig. 2 is a front elevation of the frame of the back. Fig. 3 is a rear elevation of the cushion. Fig. 4 is a vertical cross-section, on an enlarged scale, of the cushion and back-frame, showing in detail the tongue and groove whereby the cushion is secured to the back-frame. Fig. 5 is an isometric view, on an enlarged scale, of the tongue and slot pieces in position for interlocking.

The ordinary lazy-back of commerce and as commonly made consists of a heavy stiff framework A lying between planes substantially vertical and bolted or riveted below to the seat-frame. At each side of the vehicle there is usually a lower rail B, parallel or nearly parallel to the end of the seat. This rail B is at its rear end secured to the end of the frame A and is likewise secured by bolts B' or equivalent fastening to the end of the seat or to the vehicle in the neighborhood of the seat end. This rail usually carries two or more arms B² B², which respectively support bows or like supports for upholding the vehicle-top. Above each rail B extends a rail C, usually denominated the "hand-rail," affording a hand-hold for the occupant of the seat. This rail C is at its forward end suitably supported, preferably by being rigidly connected to the front end portion of the rail B. The rear end of rail C is rigidly connected to the adjacent end of the seat. The construction and combination of hand-rail and lower brace-rail B are usually alike at each end of the seat.

Upon the back of the seat a cushion is

formed either of "rep" or leather or similar fabric used in upholstery, and this cushion is rendered as soft and elastic as may be by suitable elastic stuffing or springs located within the cushion. Such is the usual and well-known construction of the lazy-back.

It frequently becomes necessary to wash the vehicle, especially after it has been driven over muddy roads or streets. During such drives not only the wheels and sides of the vehicle become covered with mud, but also the rails and back of the lazy-back. The operation of washing is usually carried on either by means of a sponge and water or by means of a hose. In either event the fine leather or rep of the cushion of the lazy-back usually becomes more or less wet and consequently injured by the application of the water. Frequently, therefore, the carriage is not washed as often as it otherwise would be and remains in a dirty and unrepresentable condition. On the other hand, when it is frequently washed the cushion of the lazy-back soon becomes injured and undesirable. The object of our invention is to obviate these disadvantages.

We have constructed the back-frame substantially as shown in Fig. 2. We construct the cushion D essentially as shown and altogether separate from and independent of the back-frame. We then attach the cushion to the back by means of suitable attachments, whereby the cushion may be attached to the back and readily disengaged therefrom. The attachment whereby the cushion is connected to the frame A should be one simple of construction. The parts should be readily interlocked and readily disengaged, and these said parts while interlocked should be so constructed as to hold the cushion securely in position and prevent the same from becoming detached from the frame of the back by the movements of the vehicle or by the occupant of the seat while sitting thereon.

Among the various modes of attaching the separable cushion to the back which may be employed and which have suggested themselves to our minds we prefer to employ a very desirable form of interlocking device, which also is of our invention. This interlocking device fulfills all the aforementioned requirements. It is as follows:

We provide a head E, connected by a nar-

row neck F, to a foot or supporting piece G. This supporting-piece is preferably made long and narrow and is riveted or otherwise suitably secured to the back H. The supporting-piece G is usually located in front of the said back H and in such position riveted to the strawboard, in order that the said piece may not bulge out the back of the cushion. The neck F is curved rearwardly in nearly a horizontal plane, its general direction inclining slightly upward as it extends backward until it reaches and joins with the head E. The neck is of sufficient length so that when the support G lies in front of the back H the neck shall project backward through the said back and hold the head E at quite a distance from the rear of the back of the cushion. The neck further passes through the back-cover I of the cushion. The head E is peculiarly formed and located with reference to the back and neck. It is curved upwardly, substantially as shown, the inner side of it being curved in substantially a portion of the arc of a comparatively small circle, and the exterior is likewise similarly curved. Furthermore, in cross horizontal section the head is also curved in front and in rear, the centers of both of these circles being located in front of the said head E. This peculiar form of head which we have invented becomes very serviceable in connection with the catch now to be described and the mode of the application of the cushion in connection therewith. To the upper broad rail A' of the back is fastened the complementary iron designed to interlock with the head E of the piece aforementioned. This complementary iron consists of the plate J, containing the orifice K. This orifice consists of the enlarged portion K' above and the diminished portion K² below. The ends of the enlarged portion K' and of the lower side or edge of the diminished portion K² are preferably rounded, as shown, for the purpose hereinafter mentioned. Behind this orifice there must be provided a recess for the reception of the head E after the latter has been interlocked with the plate J. For economy of metal this recess L is formed in the wood of the frame-piece A'. The upper edge of the plate J is provided with a lip J³, located immediately above the orifice K and lying at the upper end of the recess L of the wooden frame. The presence of this lip enables us to place the orifice K quite near to the upper edge of the wooden frame. Were it not for this lip we would have to leave a thin layer of the wooden frame at the upper edge of the recess L, and this wood would be likely to be broken upon the introduction of the head E through the orifice in the plate J. If this thin piece of wood were omitted and the lip J³ were not present, then we would be obliged to place a piece of sheet metal along the upper edge of the wooden frame and immediately below the cover A², which usually extends over the front and top edges of the wooden frame - piece A', otherwise

the head E would break through the flexible black oil-cloth cover and injure the appearance of the upper portion of the back. The lip J³ also allows the wooden recess to be formed as shown, and therefore to be sawed and chipped out with great rapidity and economy. When the heads E are being introduced through their respective openings K, the heads E will usually impinge against the inner or lower side of the lip J³, the latter in such case forming an abutment to prevent the farther progress of the head E upward. The curved portion of the head aids in introducing it through the opening K and into the recess, and also causes the neck F to be dropped properly into the opening K². The plate J is secured to the back-piece A', preferably by screws M, passing through the plate and into frame-piece A'.

In conducting the operation of interlocking the cushion D to the back-frame the bottom of the cushion is lifted away from the plane of the said back until the plane of the cushion makes an angle of about forty-five degrees with the plane of the back viewed in cross-section. Each head E is introduced into the adjacent orifice K' of its complementary locking device. This is easily accomplished because of the curvatures of the parts, more particularly of the back of the head E. The bottom of the cushion is now allowed to hang down or to drop against the back-frame A and then to hang suspended. The weight of the cushion draws down the neck F into the adjacent orifice K², thereby carrying the head E behind the said orifice K², and as the head E is larger than this orifice K² the cushion is securely locked in position. The whole operation is the work of only a part of a minute. The length of the head is such and the location of the flange J³ on the complementary part is such that when the neck F is in the opening K² the upper end of the head is in proximity to the roof of the recess, and any attempt to disengage the cushion from the back-frame by sliding the cushion vertically upward will result in failure, because the top of the head impinging against the lip J³ or roof of the recess prevents the neck F from rising high enough to come up out of the opening K². Hence the cushion is securely interlocked with the back-frame A. As long as the lower edge of the back-cushion D is pressed against the back of the frame, as will be the case at all times on account of the weight of the cushion D, the peculiar formation of the locking device, as aforementioned, will prevent the head from moving upward, so that it can be withdrawn from the plate J. As soon as the bottom of the cushion D is lifted out, so that it (the cushion) makes an angle of about forty-five or more degrees with the back-frame, the top of each head has thus been moved rearward. The heads will the more readily perform this movement, because their upper edges are curved rearward, as heretofore mentioned. At the same time the heads

have been moved rearward, and each neck F has been slid upward into the adjacent enlarged opening K. These necks F, together with their heads E, can be withdrawn through the openings K² and the cushion D removed.

The interlocking devices are simple in construction, economical of manufacture, and efficient in use.

What we claim as new and of our invention, and desire to secure by Letters Patent, is—

1. In a seat, the cushion made separable from the back-frame and provided with interlocking devices, as follows: a supporting-piece secured to the cushion and provided with the neck bent outward, forward, and then upward and terminating in the enlarged portion or head E, the planes of whose sides are bent obliquely forward and upward and whose head is enlarged over the neck in the direction of its lateral edges, the lower and front side of the neck and the front side of the head being in a continuous curve outward and upward and presenting when the lazy-back is in position an oblique surface to the plane of the frame, and the frame A, provided with opening K, composed of the larger opening K' above and the smaller opening K² below and recess at rear thereof, substantially as and for the purposes specified.

2. In a lazy-back, the cushion made separable from the back-frame and provided with interlocking devices made substantially as follows, to wit: a supporting-piece G, secured to the cushion and provided with the neck F, bent substantially as described, terminating in the enlarged portion, the head E, curved in two directions, and the plate J, secured to the back-frame and having opening K, composed of larger opening K' above and smaller opening K² below, and the recess L, formed in the frame-piece A', the plate J being further provided with the lip J³, extending from the upper portion of the plate rearward and forming a roof to the upper edge of the recess, and an abutment against which the head E may strike when introduced through the opening K into the recess L, substantially as and for the purposes specified.

3. In a lazy-back, the cushion made separable from the back-frame and provided with interlocking devices made substantially as follows, to wit: a supporting-piece G, secured to the cushion and provided with the neck F, bent substantially as described, terminating

in the enlarged portion, the head E, curved in two directions, and the frame A, provided with the opening K, composed of larger opening K' above and the smaller opening K² below and recess at rear thereof, the length of the head E being such that when the neck F is in opening K' the upper end of the head will be so near to the roof of the recess that a vertical movement of the cushion cannot enable the neck to be lifted out of opening K², substantially as and for the purposes specified.

4. In a lazy-back, the cushion made separable from the back-frame and provided with interlocking devices made substantially as follows, to wit: a supporting-piece G, secured to the cushion and provided with the neck F, bent substantially as described, terminating in the enlarged portion, the head E, curved in two directions, and the frame A, provided with the opening K, composed of a larger opening K' above and the smaller opening K² below and recess at rear thereof, the length of the head E being such that when the neck F is in opening K' the upper end of the head will be so near to the roof of the recess that a vertical movement of the cushion cannot enable the neck to be lifted out of the opening K², the roof of the recess being formed by the flange J³ of the plate J, substantially as and for the purposes specified.

5. In a seat, the cushion made separable from the back-frame and provided with interlocking devices, as follows: a supporting-piece secured to the cushion and provided with the neck bent outward, forward, and then upward, and terminating in the enlarged portion or head E, the planes of whose sides are bent forward and upward and whose head is enlarged over the neck in the direction of its lateral edges, but is of a diminishing thickness from front to rear and of less thickness in this direction than the neck, the lower and front side of the neck and the front side of the head being in a continuous curve without projection, and the inner and upper side of the neck being in one continuous curve with the rear side of the head and without projections, substantially as and for the purposes specified.

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