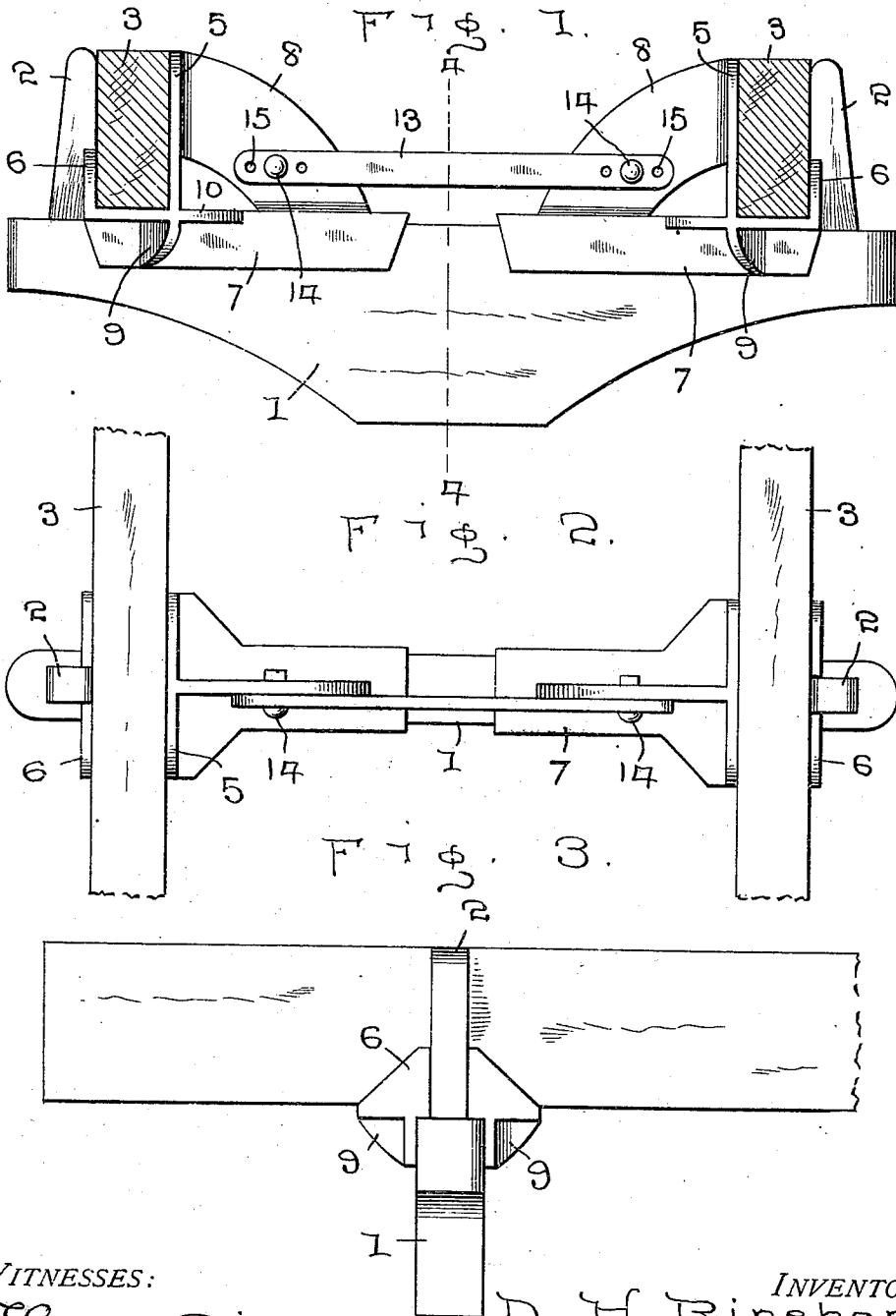


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HAY RACK BRACE AND STAY.
APPLICATION FILED OCT. 15, 1910.

991,024.

Patented May 2, 1911.

2 SHEETS—SHEET 1.



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Fig. 4.

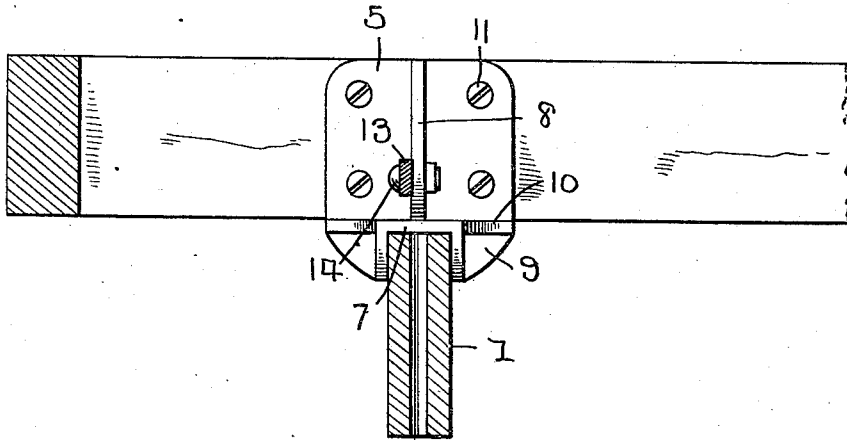


Fig. 5.

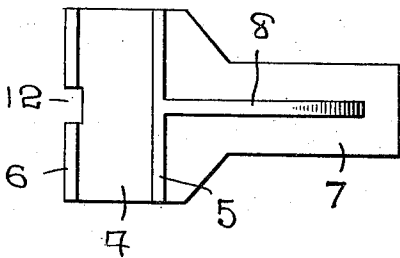


Fig. 6.

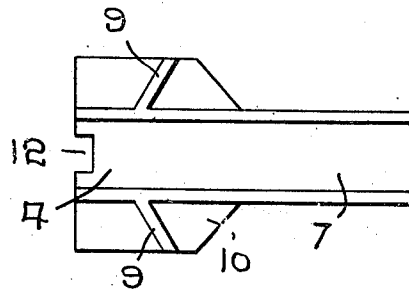
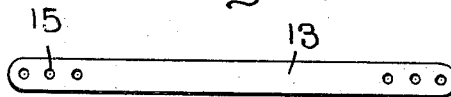


Fig. 7.



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DAVID H. RINEHART, OF LUSHTON, NEBRASKA.

HAY-RACK BRACE AND STAY.

991,024.

Specification of Letters Patent.

Patented May 2, 1911.

Application filed October 15, 1910. Serial No. 587,239.

To all whom it may concern:

Be it known that I, DAVID H. RINEHART, a citizen of the United States, residing at Lushton, in the county of York and State of Nebraska, have invented certain new and useful Improvements in Hay-Rack Braces and Stays; and I 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.

My invention relates to new and useful improvements in a hay rack brace and stay and my object is to provide means for holding the side rails of a hay rack against lateral or endwise movement on the bolster of the vehicle.

A further object is to prevent undue wear of the side rails of the rack.

A further object is to provide means for attaching the brace and stay to the side rail.

A further object is to provide reinforcing means for the brace and stay, and, a further object is to provide means for adjustably securing the braces and stays together, whereby they may be adapted to receive racks of varying widths.

Other objects and advantages will be hereinafter set forth and pointed out in the specification.

In the accompanying drawings, which are made a part of this application, Figure 1 is a sectional view through the side rails of a rack, showing the brace and stay applied to use. Fig. 2 is a top plan view thereof. Fig. 3 is a side elevation of the rack showing the brace and stay in end elevation. Fig. 4 is a sectional view as seen on line 4—4, Fig. 1. Fig. 5 is a top plan view of one stay and brace section. Fig. 6 is a bottom plan view thereof, and, Fig. 7 is an elevation of a connecting strap for the braces and stays.

Referring to the drawings in which similar reference numerals designate corresponding parts throughout the several views, 1 indicates a bolster which may be constructed in the usual or any preferred manner, and 2 indicates the standards thereon, there being a standard adjacent each end of the bolster.

Positioned between the standards 2 are the side rails 3 of the rack, which side rails are constructed in the usual or any preferred manner, and in order to brace said side rails and prevent them from curving inwardly

toward each other, I provide my improved form of brace and stay 4, preferably of metal.

The braces and stays are arranged in pairs, one for each rail, said braces and stays being substantially L-shaped, the stem 5 engaging the inner face of the side rail and of a height substantially equal to the height of the side rail, while the vertically extending section 6 projects on the outer face of the side rail and is of less height than the rail.

Formed integral with the brace 4 is a channel plate 7, the depending flanges of which engage opposite sides of the bolster while the plate proper rests on the bolster, in which manner the brace is engaged with the bolster. The channel plate 7 extends inwardly a distance from the brace and in order to reinforce the stem portion 5 and the plate 7, they are connected together by a curved arm 8, which arm is preferably formed integral with the stem and plate. The brace and channel plate are further reinforced by ribs 9 and 10, which ribs are also preferably integral with these parts.

The combination brace and stay is preferably attached to the side rail of the rack by means of screws or the like 11, which screws are introduced through the stem portion 5 and into the side rail. When the rack is placed in position on the vehicle the channel plates 7 are introduced over the bolster, the flanges of the channel plates serving to hold the braces against movement on the bolster, and the braces are further held against lateral movement by providing a notch 12 in the vertical section 6 of the brace into which enters the standard 2, thus placing parts of the section 6 on opposite sides of the standard.

The braces are held against longitudinal movement of the bolster by means of a space bar 13, the ends of the space bar being connected to the curved arms 8 by means of bolts or the like 14. The ends of the space bar are provided with a number of openings 15, through which the bolts 14 pass so that the braces may be placed at various distances apart to accommodate racks of various widths.

In view of the fact that the braces are attached direct to the side rails, the braces will be removed from the bolster when the rack is removed, and by properly placing the

braces upon the rack, they will always be in position to engage the bolsters when the rack is again placed upon the vehicle.

It will likewise be seen that by providing
5 the space bar and placing a number of openings through each end thereof the braces may be adjusted to fit any sized rack.

It will further be seen that in view of the simplicity of my device it can be cheaply
10 constructed and yet rendered very strong and durable, and, it will further be seen that when the parts are properly adjusted the sides of the rack will be held rigid and in proper position upon the bolsters.

15 What I claim is:

1. The combination with a vehicle bolster having vertical end standards, of brace members engaging the bolster and standards, each brace member being formed with a
20 channeled base portion to receive the upper edge of the bolster and with channeled vertical end portions, said vertical portions having notches to receive said standards and being adapted to receive the side rails of a
25 hay rack, said brace members being further formed with integral arms connecting the base and vertical portions thereof, and a tie member to connect the arms of the brace members, whereby the vertical portions

thereof are held against the standards 30 against displacement.

2. In combination with a bolster having a standard thereon, a brace having a channeled basal portion to receive the bolster and a channeled vertical portion to receive a 35 side rail, said vertical portion being formed with a notch to receive the standard and a curved arm integral with the vertical and basal portions of the brace and serving to hold said portions apart. 40

3. In combination with a bolster having standards thereon, brace members having channeled basal portions mounted on the bolster and channeled vertical portions inter- 45 locked with the standards and adapted to receive side rails, curved arms integral with the basal and vertical portions of the braces and a spacer bar adjustably connected with the arms of the braces to hold said braces against longitudinal movement on the bol- 50 ster.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

DAVID H. RINEHART.

Witnesses:

P. N. MOORE,

O. M. HAGER.