

No. 881,752.

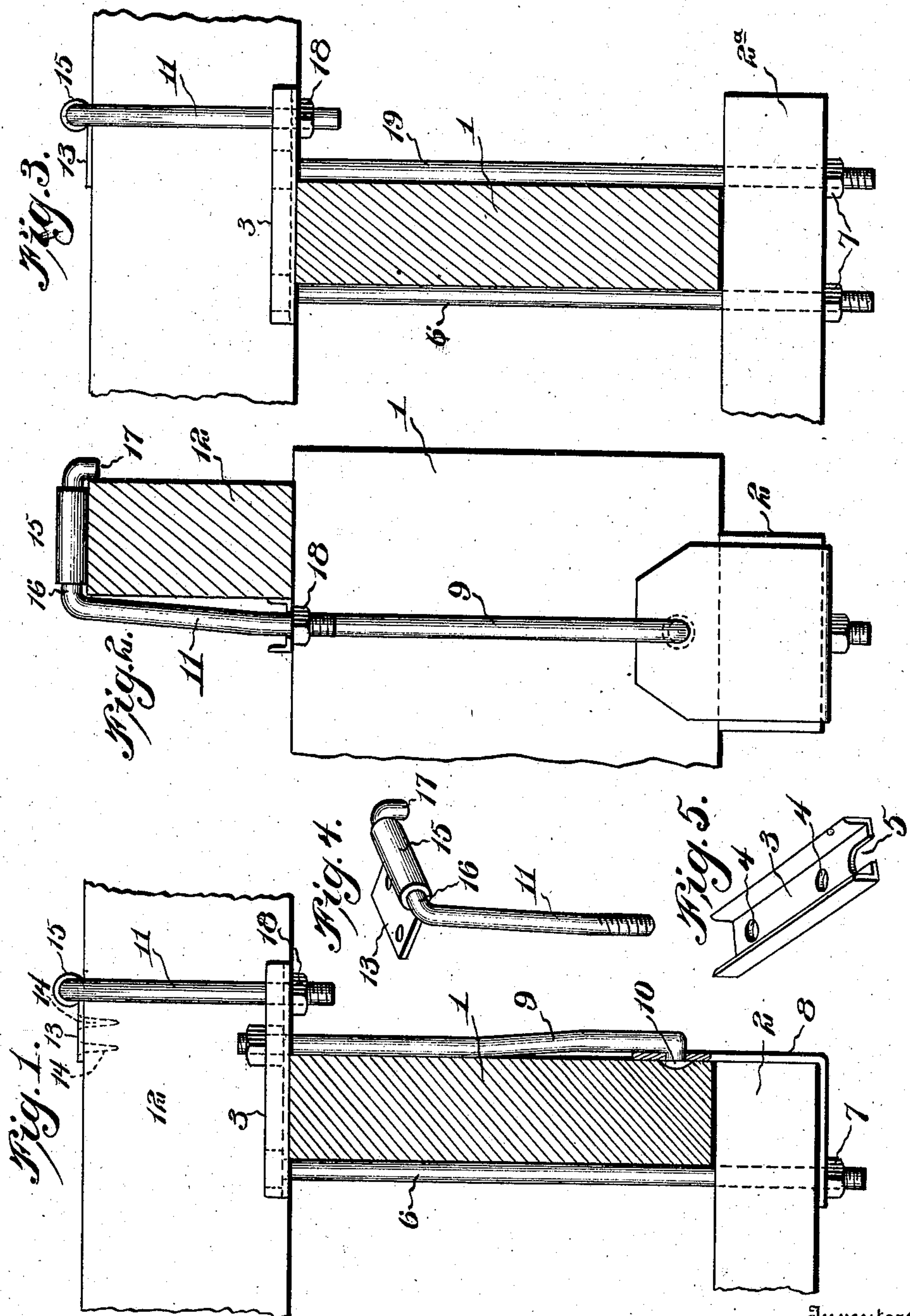
PATENTED MAR. 10, 1908.

E. J. WELLS & J. M. FULLER.

HAY RACK.

APPLICATION FILED MAR. 7, 1907.

2 SHEETS—SHEET 1.



Witnesses

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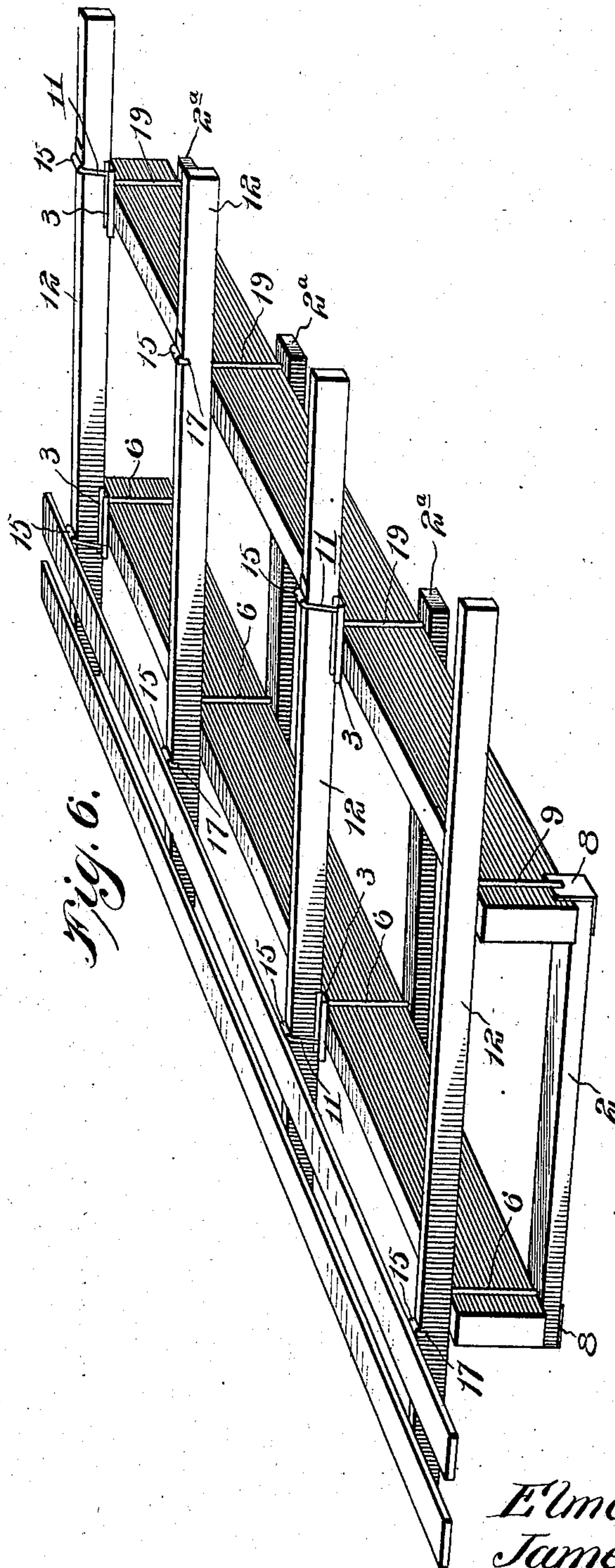


Fig. 6.

Witnesses

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UNITED STATES PATENT OFFICE.

ELMER J. WELLS, OF NASHUA, AND JAMES M. FULLER, OF CEDAR FALLS, IOWA, ASSIGNORS
TO WAGNER MANUFACTURING COMPANY, OF BLACKHAWK COUNTY, IOWA.

HAY-RACK.

No. 881,752.

Specification of Letters Patent.

Patented March 10, 1908.

Application filed March 7, 1907. Serial No. 361,117.

To all whom it may concern:

Be it known that we, ELMER J. WELLS, a citizen of the United States, residing at Nashua, in the county of Chickasaw and State of Iowa, and JAMES M. FULLER, a citizen of the United States, residing at Cedar Falls, in the county of Blackhawk and State of Iowa, have invented new and useful Improvements in Hay-Racks, of which the following is a specification.

This invention relates to hay racks, and one of the principal objects of the same is to provide convenient means for removing the rack from the bed without removing the nuts from the bolts, thus obviating the danger of losing the nuts.

Another object of the invention is to provide simple, convenient and efficient means for holding the rack upon the bed in a firm and reliable manner, and to permit the rack to be quickly removed from the bed without danger of losing the nuts from the bolts.

Still another object is to provide rub irons to protect the front cross pieces of the rack and to provide novel means for securing said rub irons in place.

These and other objects may be attained by means of the construction illustrated in the accompanying drawings, in which:

Figure 1 is a transverse sectional view of one of the longitudinal sills, and showing the manner of securing the rack to said sill. Fig. 2 is a view taken at right angles to Fig. 1, and showing one of the cross bars of the rack in section. Fig. 3 is a view similar to Fig. 1, and showing two bolts for holding the rack to the sill, and to the cross piece below the sill, instead of the rub plate, as shown in Figs. 1 and 2. Fig. 4 is a detail perspective view showing one of the hook bolts secured to a bearing plate adapted to be secured to the upper edge of one of the cross bars on the rack. Fig. 5 is a detail perspective view of an attaching plate to which the hook bolt is adapted to be connected by a nut. Fig. 6 is a perspective view of the rack.

Referring to the drawing for a more particular description of our invention, the numeral 1 designates one of the longitudinal sills of the wagon bed, and 2 is the front cross piece upon which the sills 1 are supported. 3 is an angle or channel iron supporting plate provided with bolt holes 4 and an open slot 5 at one end. The supporting plate 3 is placed upon the top of the sill 1, and is se-

cured in place by means of a bolt 6, passing through one of the bolt holes 4, and extending through the cross piece 2, and fitted with a nut 7. A rub plate 8 is secured to the bottom of the cross piece 2 by means of the bolt 6 which passes through the same, and to the upper end of the rub plate 8 a bolt 9 is connected, said bolt 9 passing through a hole in the rub plate, and being headed up at 10 against the inner side of the same. The bolt 9 passes through one of the bolt holes 4 in the supporting plate 3. Other means for securing the rub plate 8 in place may be resorted to. A hook bolt 11 is connected to the top of the cross bar 12 of the rack by means of a bearing plate 13, said bearing plate being secured by screws or nails 14 to the cross bar 12, and provided with a tubular bearing 15 for the horizontal portion 16 of the hook bolt 11. The terminal end 17 of the hook bolt engages one side of the cross bar 12, the opposite end of said hook bolt being threaded for the engagement of a nut 18.

As shown in Fig. 3 a bolt 19 is used instead of the bolt 9 and the rub plate 8, said bolt extending through the cross piece 2^a, the hook bolt 11 being identical with that shown in Figs. 1 and 2, and this construction being adapted for use at the rear end of the rack.

Referring to Fig. 6 it will be seen that four cross bars and cross pieces are employed in making up the rack; but it will be understood that any suitable number may be used. It will also be noted that the supporting plates 3 are disposed alternately upon opposite sides of the cross bars 12.

From the foregoing it will be obvious that by loosening the nut 18, on the hook bolts 11, said bolts may be swung out of the slot 5 in the securing plate, and the rack may be quickly detached from the bed without removing the nuts 18 from said bolts, and without loosening any of the parts. In replacing the rack upon the bed, the bolts 11 and nuts 18 are always in place, for permitting the bolts 11 to be swung into the slot 5 of the supporting plates 3 when the nuts 18 may be tightened to hold the rack firmly in place. The fixtures disclosed herein may be used without the rub plates, if desired.

Our invention is of simple construction, can be readily applied to any vehicle, and the rack may be quickly detached from the bed without removing the nuts from the bolts and running the danger of their being lost,

and the rack can be readily attached to the bed by swinging the bolts into the slots in the attaching plates, and turning the nut once or twice.

5 Having thus described the invention, what we claim is:

1. In a hay rack, the combination with a bed, an attaching plate secured to said bed, a rub plate secured to said bed, the attaching
10 plate being secured to said bed by means of a bolt passing through said plate and through said bed, and a bolt passing through said attaching plate and engaging said rub plate, and a hook bolt pivoted to the rack, and
15 adapted to be swung into a slot in said attaching plate, substantially as described.

2. In a hay rack, the combination of an attaching plate secured to the top of the sill

of a bed and provided with a slot in one end thereof, and a hook bolt pivoted to the top 20 of the cross bar of a rack and adapted to be swung into said slot, and a nut upon said bolt for engaging the attaching plate, substantially as described.

In testimony whereof we affix our signatures in the presence of two witnesses.

ELMER J. WELLS.

JAMES M. FULLER.

Witnesses to the signature of Elmer J. Wells:

JOHN M. MORLEY,

CHARLES ST. GERMAIN.

Witnesses to the signature of James M. Fuller:

A. E. LUNN,

W. R. IRWIN.