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PATENTED MAY 15, 1906.

E. NEVILLE.
HAY RACK.

APPLICATION FILED JUNE 13, 1905.

2 SHEETS—SHEET 1.

FIG. 1.

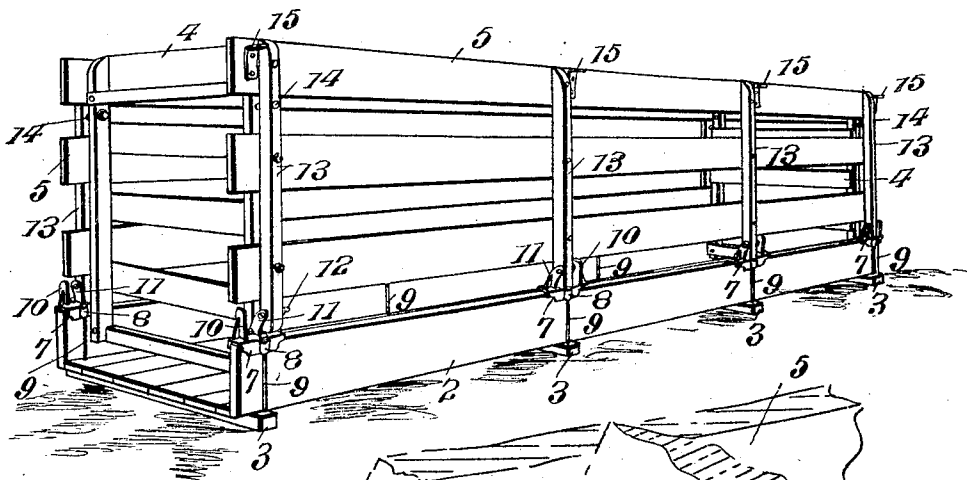
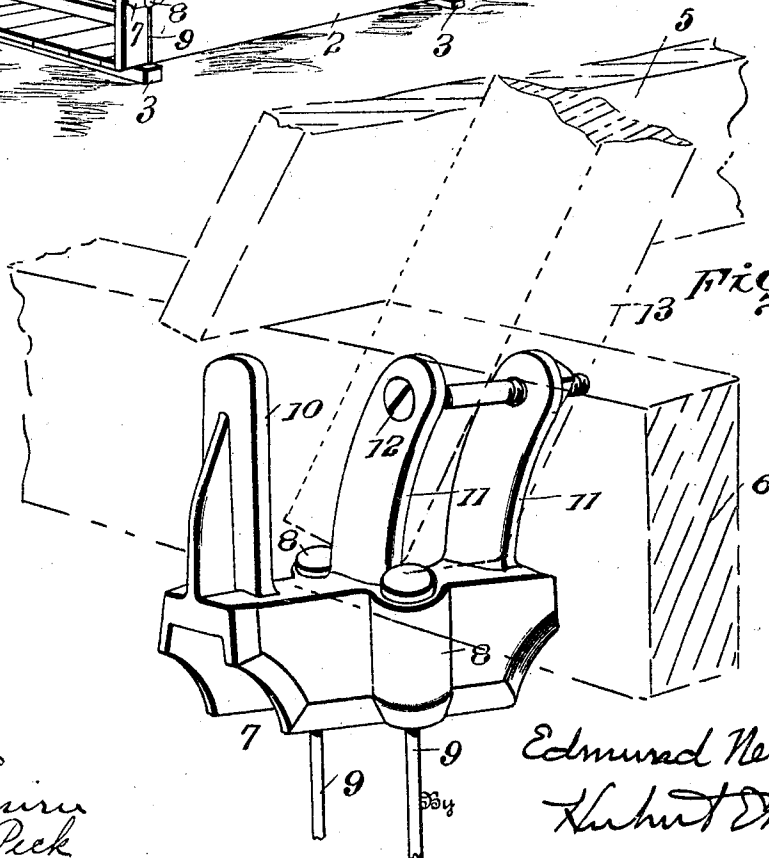


FIG. 4.



Witnesses

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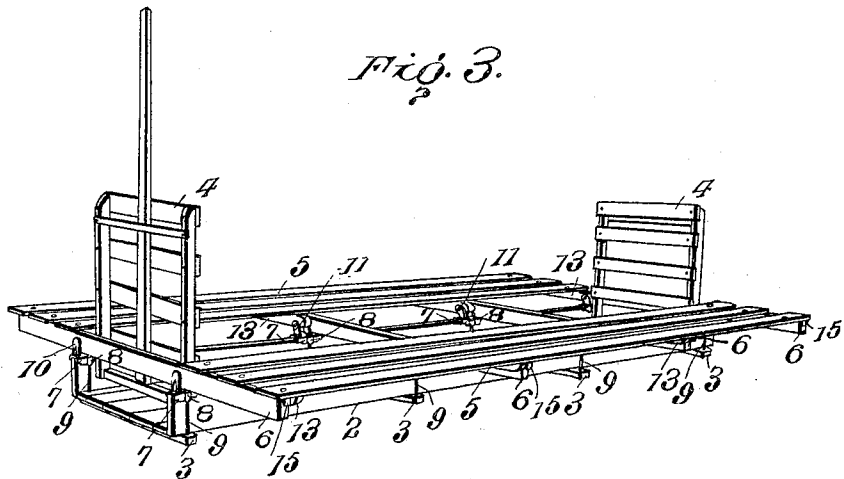
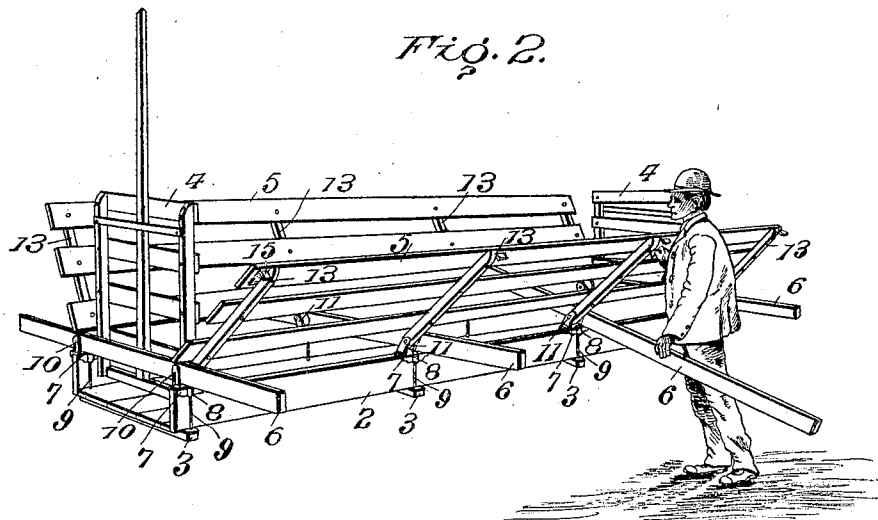
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2 SHEETS—SHEET 2.



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UNITED STATES PATENT OFFICE.

EDMUND NEVILLE, OF DIXON, ILLINOIS.

HAY-RACK.

No. 820,435.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, EDMUND NEVILLE, a citizen of the United States, residing at Dixon, Lee county, Illinois, have invented certain new and useful Improvements in Hay-Racks; 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.

This invention relates to certain improvements in hay and stock racks; and the objects and nature of my invention will be readily understood by those skilled in the art in the light of the following explanation of the construction shown by the accompanying drawings which illustrate what I now consider a preferred embodiment of my construction for purposes of explanation from among other constructions and arrangements within the spirit and scope of my invention.

It is an object of my invention to provide certain improvements in hay or stock racks embodying improved brackets adapted for mounting on the wagon-body sides to receive the rack-side sections and supporting means for upholding said rack sides; and a further object of my invention is to provide certain improvements in construction and arrangements of parts whereby a highly-efficient and readily-adjusted hay and stock rack will be produced.

The invention consists in certain novel features in construction and also in combinations and arrangements of parts, as more fully and particularly set forth hereinafter.

Referring to the accompanying drawings, Figure 1 is a perspective view of a rack constructed in accordance with my invention and shown applied to a wagon-body and in stock-rack position. Figs. 2 and 3 are perspective views of the rack and wagon-body, showing the rack adjusted to different hay-rack positions. Fig. 4 is a detail perspective view of my improved rack-bracket.

In the drawings I show an ordinary wagon-body 2, detached from the running-gear and provided with several cross-bars 3, extending across the under surface of the floor of the body and projecting beyond the sides thereof. In the particular example shown four such cross-bars 3 are shown, bars being arranged beneath the ends of the body and at intermediate points, although I do not wish to so limit my invention.

The rack consists of the two usually-fixed vertical end sections 4, the two adjustable longitudinal or side sections 5, cross supporting-bars 6, and brackets fitted on the wagon-body sides and receiving said side sections 60 and said cross-bars.

Each bracket is strongly constructed of metal and is usually cast or otherwise formed in one piece and comprises the longitudinally-elongated saddle 7, approximately U-shaped in cross-section to snugly straddle and extend longitudinally of a wagon-body side, resting on the top edge thereof and extending down on the inner and outer vertical faces thereof. At its inner and outer vertical sides the saddle 7 is usually formed with the lateral enlargements or bosses 8, which are vertically perforated to receive the two-headed vertical bolts 9, arranged at the inner and outer vertical faces of the wagon-body side and passing down through said perforations and through a cross-bar 3 to clamp and secure the bracket rigidly in proper position on the wagon-body side.

The saddle is formed with means projecting up from its top surface to receive a portion of a rack-side section and means to support the side sections in hay-rack position. Various means can be employed for this purpose, according to the particular arrangement provided for supporting or adjusting the hay-rack sides. In the particular example illustrated I show each saddle provided with two adjacent sockets or recesses formed by three spaced upright rigid lugs or arms 10 11 integral with the saddle and rising from the approximately flat longitudinal top face of the saddle. The lug 10 is usually vertical or approximately straight and rises from one end of the saddle, and the two lugs 11 are usually parallel and similar and rise one from about the center and the other from the opposite end of the saddle and are both curved or inclined upwardly and laterally or outwardly and at their upper end portions are perforated to receive the horizontal pivot-bolt 12, passing transversely through the upper ends of said lugs. The bolt 12 usually has a flat head, and the hole in the center lug 11 is usually countersunk to receive said head, thereby offering no obstruction to a bar placed in the socket formed by lug 10 and center lug 11. The brackets about as thus described are arranged in pairs on the opposite sides of the

wagon-body and over the opposite ends of each cross-bar 3, through which the vertical bolts extend, as described.

The rack-side sections are provided with cross-bars or uprights 13, usually one cross-bar 13 being provided for each bracket. The lower end of each cross-bar 13 is pivotally joined by a bolt 12 to a bracket. The lower end of each bar 13 fits between the inclined lugs 11 of a bracket, and the bolt 12 is passed therethrough, so that the rack-side sections are free to swing vertically on the bolts 12. For instance, in the particular example illustrated each side section is provided with four cross-bars 13, pivotally joined to four brackets, although I do not wish to limit my invention to such specific arrangement. The outward inclination of the lugs 11 throws the pivot-bolts 12 outside of the vertical planes, including the wagon-body sides, thereby throwing the side-section bars 13 outwardly, so that when said side sections are in the vertical position the longitudinal planks of the side sections do not project in over the wagon-body, but form a rack of full capacity between the vertical side sections.

When the rack is adjusted to form a stock-rack, the side sections can be held in the vertical position and to the end sections by any suitable means. For instance, I show removable bolts 14 for detachably securing the side sections in the vertical position to the end sections. To form the hay-rack, the bolts 14 are released from the side sections, allowing said sections to swing outwardly and downwardly onto the horizontal cross supporting-bars 6, removably resting transversely of the wagon-body and projecting outwardly in both directions beyond the sides thereof and beneath and upholding the opposite side sections. These cross supporting-bars rest removably on the saddles of the brackets and in the sockets formed between the lugs 10 and center lugs 11 thereof. Said bars 6 are removed when the side sections are swung to the vertical position. The bars 6 can support the side sections in the horizontal position, or, if so desired, they can also cooperate in supporting said sections in inclined positions, as shown in Fig. 2. The bars when the side sections are in the inclined position engage the lower edges of the bottom planks of the two sections. The bars 6 are inserted under said side sections while in the vertical position when it is desired to adjust said sections to the inclined position, so that as said sections swing down the lower edges of the bottom planks thereof will engage said bars and assist to uphold said sections from dropping below the inclined position. If desired, other or additional means can be provided to hold the side sections in the inclined position.

The bars 6 are inserted when said side sections have almost reached the horizontal po-

sition when it is desired to hold said sections in the horizontal position, as shown in Fig. 3.

The end sections of the rack can be secured in the wagon-body in any suitable manner. For instance, they can be bolted to the sides of the wagon-body about as shown.

The brackets can be made and sold as articles of manufacture for application to various types of wagon-bodies and racks, and as at present advised I do not wish to limit all features of my invention to the exact means disclosed for adjusting and supporting the rack-side sections.

I usually provide means to prevent longitudinal movement of the bars 6 when the rack-side sections are in the horizontal position. Various devices can be provided for this purpose. For instance, I show stops 15 on the uprights 13 to drop down beyond the outer ends of the bars 6, and hence prevent said bars jarring or working longitudinally from the proper positions.

As at present advised I do not wish to limit my invention to forming the bracket with its saddle forming the floor of both sockets of the bracket, as the lugs or uprights might be otherwise connected than by the saddle to form the two sockets.

It is obvious that various modifications and variations might be resorted to in the forms, constructions, and arrangements disclosed without departing from the spirit and scope of my invention. Hence I do not wish to limit myself to the exact construction illustrated.

What I claim is—

1. A wagon-body bracket for hay and stock racks comprising a saddle formed to fit down on and straddle a wagon-body side and on its top formed with adjacent sockets, substantially as described.

2. A hay-rack bracket comprising an elongated saddle approximately U-shaped in cross-section and having securing-bolt-receiving vertical perforations at its opposite sides and at the top formed with means to receive parts of the hay-rack.

3. A hay-rack bracket comprising upwardly-projecting top lugs forming adjacent sockets to receive parts of a hay-rack and to support the rack-side sections.

4. A hay-rack bracket comprising a body adapted to be secured to a wagon-body side and provided with upwardly-projecting spaced lugs forming two adjacent sockets.

5. A hay-rack bracket comprising a body having upwardly-projecting end lugs and an intermediate upwardly-projecting lug spaced from the end lugs and dividing the space between the end lugs into two sockets.

6. A hay-rack bracket comprising a saddle having at its top surface a plurality of upright spaced lugs forming sockets, a pair of said lugs being inclined outwardly, and a transverse pivot mounted in their upper ends

to confine a rack-section cross-bar between said inclined lugs.

7. A hay-rack comprising a wagon-body, series of similar brackets secured along the top edges of the wagon-body sides, each bracket formed with a pair of adjacent top sockets, and adjustable rack-side sections supported thereby.

8. A hay-rack comprising a wagon-body, series of brackets secured along the top edges of the wagon-body sides and formed with top sockets, adjustable rack-side sections having cross-bars pivotally joined to the brackets, and side-section-supporting means adapted to extend transversely of the wagon-body and removably fit in the sockets of opposite brackets.

9. A hay-rack comprising a wagon-body, series of similar brackets secured along the top edges of the wagon-body side, each bracket formed with adjacent top sockets, adjustable rack-side sections and means adapted to extend transversely of the wagon-body and removably fit in sockets of opposite brackets to support said sections in hay-rack position.

10. In combination, a wagon-body having bottom cross-bars, series of brackets arranged along the opposite wagon-body sides and over the opposite ends of said cross-pieces, each bracket comprising a saddle straddling the top edge of a side and provided with a top socket and vertical bolts arranged at the opposite vertical faces of the side and passing down through the cross-bar and up through the opposite side portions of the saddle, and rack-side sections.

11. In combination, a wagon-body, brackets secured along the top edges of the wagon-body sides and formed with upwardly-extending lugs above the wagon-body sides, rack-side sections, transverse pivot-bolts pivotally joining the side sections to said lugs, and removable supporting cross-bars adapt-

ed to extend transversely of the wagon-body and rest between lugs of opposite brackets and upholding said side sections.

12. In combination, a wagon-body, saddles secured along the opposite sides thereof and having upwardly-extending lugs, each saddle having a pair of spaced lugs inclined outwardly, rack-side sections having cross-bars at their lower ends pivotally joined between said lugs, and removable supporting-bars to extend transversely of the wagon-body and saddles to support the side sections in lowered position.

13. A hay-rack comprising in combination, a wagon-body, rack-side sections having cross-bars pivotally connected with the wagon-body, whereby said sections can swing vertically, said sections comprising longitudinal planks secured to the cross-bars, and transverse removable supporting cross-bars extending transversely of the wagon-body and projecting beneath both side sections to engage the under faces of the sections and support them in the horizontal position.

14. A hay-rack comprising swinging side sections, and removable cross-bars to support the same in lowered position, and means to stop said bars against longitudinal movement.

15. A hay-rack bracket formed to fit on the top edge of a wagon-body side and having securing means to pass down on opposite sides of the wagon-body side, said bracket provided with three vertically-disposed portions spaced to form sockets above the wagon-body side.

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

EDMUND NEVILLE.

Witnesses:

J. E. DREW,

H. A. BROOKS.