

No. 616,008.

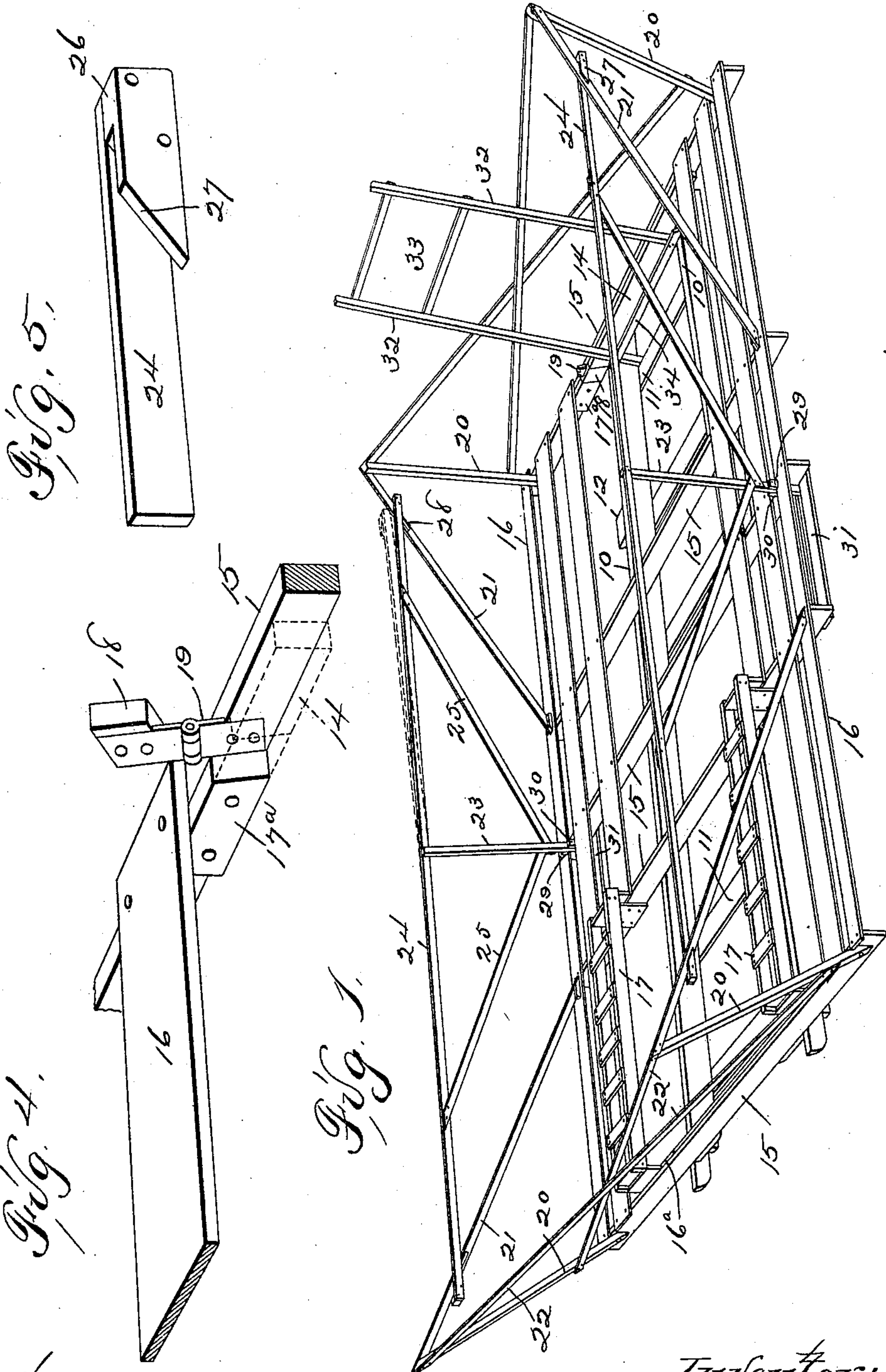
Patented Dec. 13, 1898.

S. H. PLOMBERG.
HAY RACK FOR FARM WAGONS.

(Application filed Oct. 19, 1897.)

(No Model.)

2 Sheets—Sheet 1.



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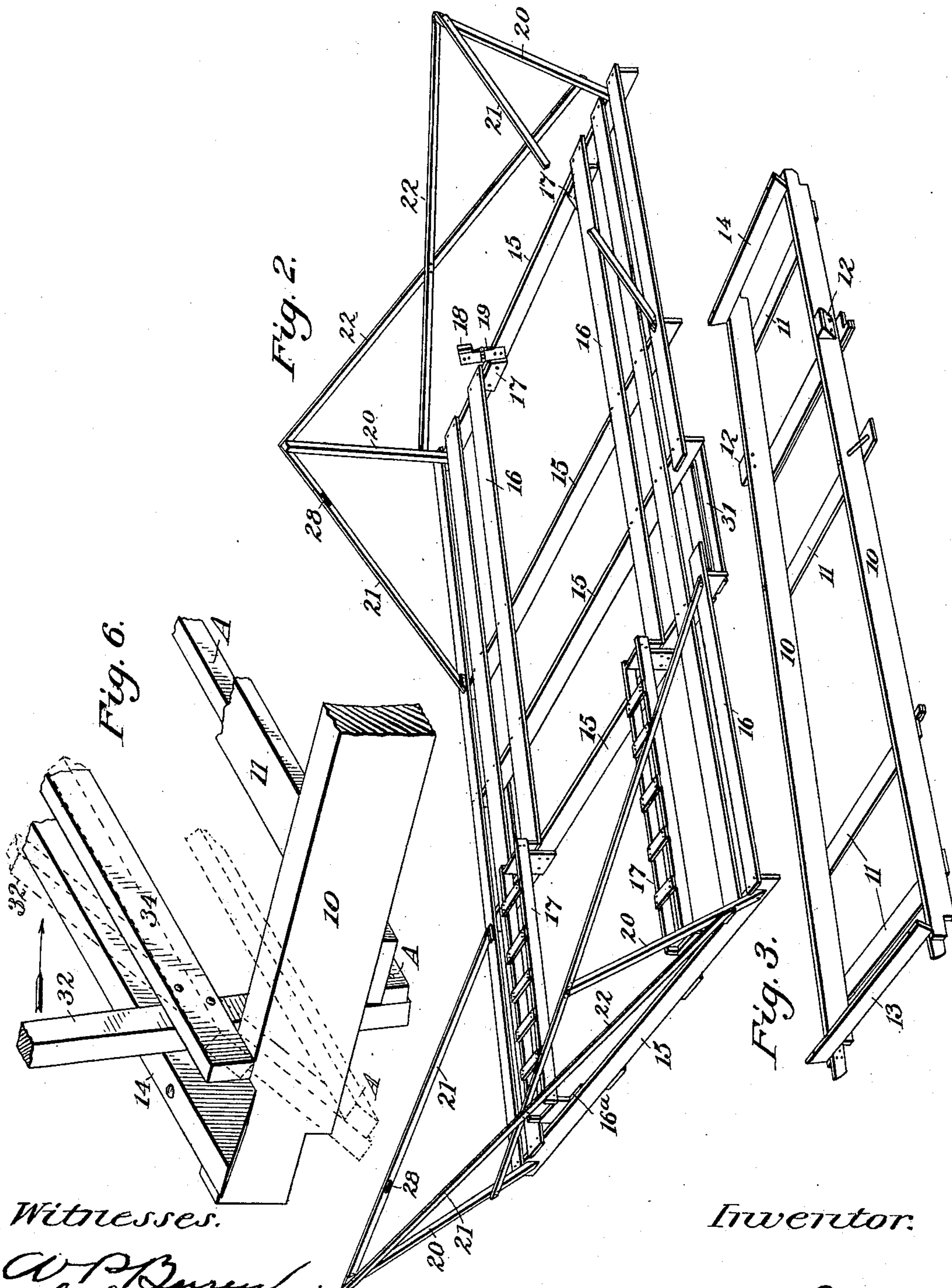
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UNITED STATES PATENT OFFICE.

SEVER H. PLOMBERG, OF LELAND, IOWA.

HAY-RACK FOR FARM-WAGONS.

SPECIFICATION forming part of Letters Patent No. 616,008, dated December 13, 1898.

Application filed October 19, 1897. Serial No. 655,751. (No model.)

To all whom it may concern:

Be it known that I, SEVER H. PLOMBERG, a citizen of the United States, residing at Leland, in the county of Winnebago and State of Iowa, have invented a new and useful Hay-Rack for Farm-Wagons, of which the following is a specification.

The object of this invention is to provide a hay-rack of simple, cheap, strong, and durable construction designed to be readily and quickly connected to a wagon and firmly fixed thereon without the use of nails, screws, or similar holding devices.

A further object is to provide a hay-rack in which the side pieces of the rack may be readily and quickly attached or detached and when in place will support the ends of the rack-frame and prevent the said ends from sagging; and my object is further to provide detachable end pieces for the hay-rack of simple, strong, and durable construction that may be readily and quickly attached or detached and when in place will add strength to the rack.

My invention consists in the construction, arrangement, and combination of the means for detachably securing the rack-frame to the wagon-bed, in the construction of the detachable side pieces, and the arrangement and combination thereof with the rack, and also in the construction of the end pieces of the rack and their arrangement and combination relative to the rack, as hereinafter more fully set forth, pointed out in my claims, and illustrated in the accompanying drawings, in which—

Figure 1 shows a perspective view of the entire hay-rack. In this figure the position of one of the side pieces before it is connected with the end portions of the rack is illustrated by dotted lines. Fig. 2 shows a perspective view illustrating the hay-rack proper with the side and end pieces detached. Fig. 3 shows a perspective view of the wagon-bed detached. Fig. 4 shows an enlarged detail view illustrating the locking device whereby the frame is connected with the wagon-bed. Fig. 5 shows an enlarged detail perspective view of one end of one of the side pieces of the hay-rack. Fig. 6 shows an enlarged perspective view of the lower end of the detachable end piece or ladder.

Referring to the accompanying drawings, I shall first describe the wagon-bed.

The reference-numeral 10 is used to indicate the side rails of the wagon-bed, which are connected by a series of cross-pieces 11 and which are further separated at one end than at the other. This wagon-bed is designed to enter between the standards on the trucks of a wagon, and blocks 12 are secured to the outer surface of the side pieces at the narrower end to engage the standards, which are usually placed the same distance apart on both trucks. On top of the wagon and near the ends thereof are the cross-pieces 13 and 14. Each of these cross-pieces has its ends tapered upwardly and outwardly for purposes hereinafter made clear.

The frame of the hay-rack is composed of a series of cross-pieces 15, to the top edges of which the boards 16 are secured to extend longitudinally of the rack. The wheel-guards 17, of ordinary construction, are located at their proper positions in this frame. On the inner surface of one of the cross-pieces 15 I have fixed the blocks 16^a, which have their adjacent ends inclined downwardly and inwardly to mate with the ends of the cross-piece 13. Secured to the cross-piece 15 at the opposite end of the frame are the similar blocks 17^a, which usually are separated by a distance somewhat greater than the length of the cross-piece 14.

18 indicates a block fixed to one of the plates of the hinge 19, which is secured to the inner face of the said cross-piece 15 adjacent to one of the blocks 17^a, and said hinge is arranged thereon at an angle corresponding to the angle of the end of the cross-piece 14, and this block 18 is of a width to fill the space between the blocks 17^a and cross-piece 14. The practical operation of this portion of the apparatus is as follows: Assuming that the bed is in position on the trucks of a wagon and that it is desired to connect the hay-rack therewith, one end of the hay-rack is placed on the bed so that the cross-piece 15 thereon rests upon the ends of the side pieces 10 that project beyond the cross-piece 13. Then the hay-rack is moved longitudinally until the bevel ends of the cross-piece 13 engage the bevel ends of the blocks 16^a, and when in this position the cross-piece 15 at the opposite end

of the rack may drop down at the outer edge of the cross-piece 14, so that the blocks 17^a are in alinement with the ends of the cross-piece 14. Then the hinged block 18 is swung downwardly into position between the end of the cross-piece 14 and the block 17^a. This obviously will prevent either end of the rack from being elevated relative to the wagon-bed without first swinging the block 18 upwardly, and when this is done it is obvious that the rack may be easily and quickly detached.

At the corners of the rack the uprights 20 are secured, and each upright is provided with a brace 21, that extends toward the central portion of the rack, and a brace 22, that extends to the upright on the opposite corner. This, however, leaves the sides of the rack open, so that hay or fodder or the like may be easily placed thereon.

The detachable side pieces of the rack each comprise an upright 23, a horizontal top piece 24, and braces 25, leading from the end portions of the horizontal top piece to the upright 23. The said horizontal top pieces 24 are of a length designed to extend between the upper end portions of the braces 21 on opposite ends of the rack. On each end of each of said top pieces 24 is a block 26 to project straight outwardly and then inwardly parallel with the part 24, and the inner end of this block 26 is beveled at 27 on the same angle as the said braces 21 are extended.

28 indicates blocks fixed to the inner faces of the braces 21 to prevent the parts 24 from moving downwardly relative to the said braces. On the lower end portion of each of the uprights 23 is a block 29 to engage with one of the boards 16 and prevent the upright from moving downwardly between the boards, and also a block 30, designed to fill the space between two of the boards 16.

The reference-numeral 31 is used to indicate two strips secured to the under edge of the central cross-pieces 15, with a space between them wide enough to admit the lower end of the upright 23. A similar device is of course provided for each upright. This obviously will support the said uprights against the pressure applied thereto by a load of hay. To secure these side pieces in position, I first place one end of the hay-rack to rest upon the top of the cross-piece 14, while the other end rests upon the side pieces 10. This obviously permits the central portion of the hay-rack to sag. Then the uprights 23 are placed in position, as shown, and the ends of the horizontal side pieces 24 are made to rest upon the blocks 28, and the extension on the block 26 on one end of each side piece is made to pass around the brace 21, while the extension of the block 26 on the other end of the side piece is made to pass under the brace 21 on the opposite end of the hay-rack. Then the entire hay-rack is moved longitudinally until the cross-piece 15 on the end that was previously ele-

vated drops down to rest upon the top of the wagon-bed. This obviously causes the braces 21 to enter the spaces between the blocks 26 and the horizontal pieces 24 on both ends of each horizontal side piece, and thereby firmly secure the said side pieces in position, from which they can be detached only by elevating the end of the hay-rack so that the central portion may sag.

The detachable end piece comprises two parallel uprights 32, connected by cross-pieces 33, and having near its lower end portion a cross-piece 34 long enough to project over the side pieces of the wagon-bed to limit the downward movement of the said end piece and also having at its extreme lower end of said upright cross-piece A. One of the cross-pieces 11 of the wagon bed is placed in such a position that when the uprights 32 of the said end piece are resting against the cross-piece 14 the lower ends of the said uprights 32 at cross-piece A will be engaged by the cross-piece 11, and thereby prevent the upper ends of the uprights 32 from moving upwardly and outwardly from the rack.

Having thus described the construction and function of each of the parts of the hay-rack in turn, what I claim as my invention, and desire to secure by Letters Patent of the United States therefor, is—

1. In a hay-rack, the combination of a wagon-bed designed to rest upon the trucks of a wagon, cross-pieces secured to the top of the wagon-bed near its end portions and having their ends beveled upwardly and outwardly, a hay-rack frame having cross-pieces at its ends, and blocks secured to the inner face of one of said cross-pieces and provided with beveled ends to mate with the cross-piece on the wagon-bed, similar blocks fixed to the inner face of the cross-piece on the opposite end of the hay-rack separated from each other by a distance greater than the length of the cross-piece on the corresponding end of the wagon-bed, and a beveled block hinged to the cross-piece of the hay-rack and designed to engage the beveled end of the cross-piece on the wagon-bed, to operate substantially in the manner set forth and for the purposes stated.

2. The combination with a hay-rack having open sides, of corner-uprights secured to the rack-frame, braces extending downwardly and inwardly from the upper ends of the said uprights, detachable side pieces, each comprising an upright designed to be detachably connected with the rack-frame, two strips 31 to receive the lower end of the upright to brace the same a horizontal top piece fixed to the upright, blocks on the ends of the horizontal top piece capable of partially surrounding the said braces, and blocks secured to said braces to prevent the downward movement of the end piece relative to the braces so that the said horizontal side pieces may be attached to the said braces when the central

portion of the rack sags, all arranged and combined to operate substantially in the manner set forth and for the purposes stated.

3. The combination with a hay-rack, of a
5 detachable end piece therefor, comprising two parallel uprights 32, cross-pieces 33 for connecting them, a cross-piece 34 having its ends extended beyond the uprights 32 and designed to rest upon the top edges of the wagon-bed,
10 and a cross-piece 11 secured to the wagon-bed to limit the movement of the lower ends of the said uprights, substantially as and for the purposes stated.

4. An improved hay-rack, comprising in
15 combination, a wagon-bed having the cross-pieces 11 and also the cross-pieces 13 and 14 provided with beveled edges, a hay-rack frame, cross-pieces 15 thereon, blocks 16^a on

one of said cross-pieces, and blocks 17^a on the other cross-piece, a block 18 hinged to the
20 cross-piece 15 adjacent to the block 17^a, uprights 20 fixed to the rack-frame, braces 21 and 22, blocks 28 fixed to the braces 21, side uprights 23, horizontal top pieces 24 fixed thereto, braces 25, blocks 29 and 30 for limiting the movement of the uprights 23, strips
25 31 to receive the lower ends of the uprights 23, blocks 26 fixed to the ends of the side pieces 24, and a detachable end piece comprising the parts 32, 33, and 34, all arranged
30 and combined substantially in the manner set forth and for the purposes stated.

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