

No. 748,246.

PATENTED DEC. 29, 1903.

I. WILLIAMS.
COMBINED HAY RACK AND WAGON BOX.

APPLICATION FILED NOV. 14, 1903.

NO MODEL.

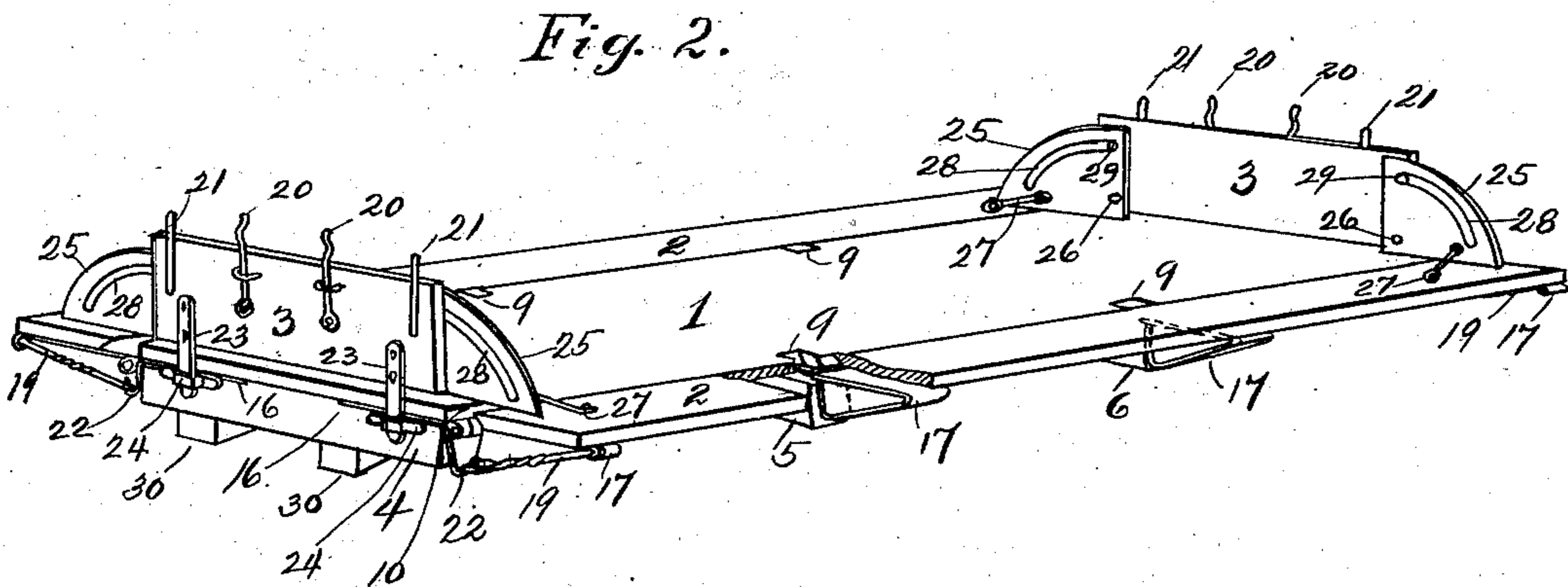
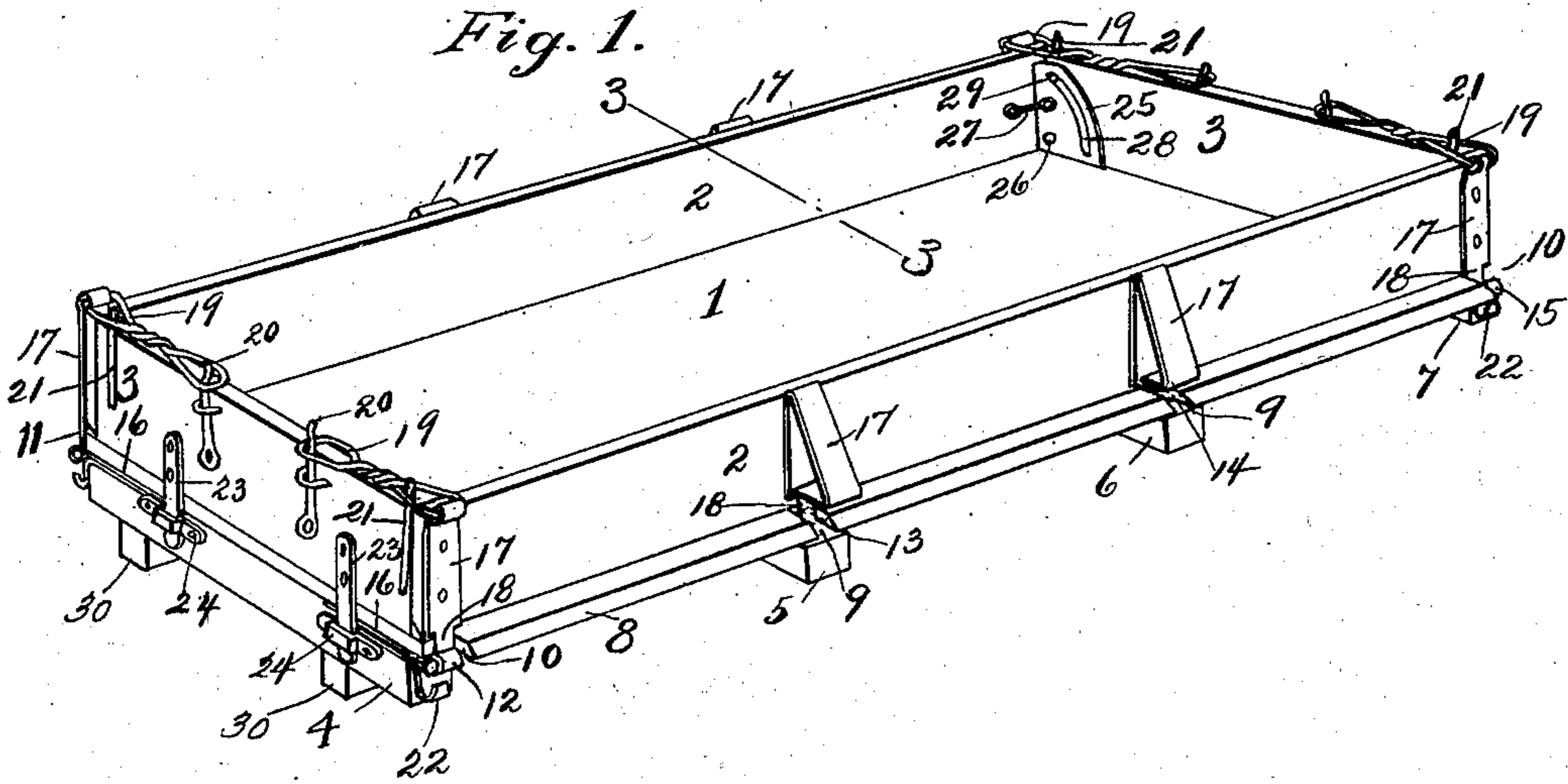


Fig. 3.

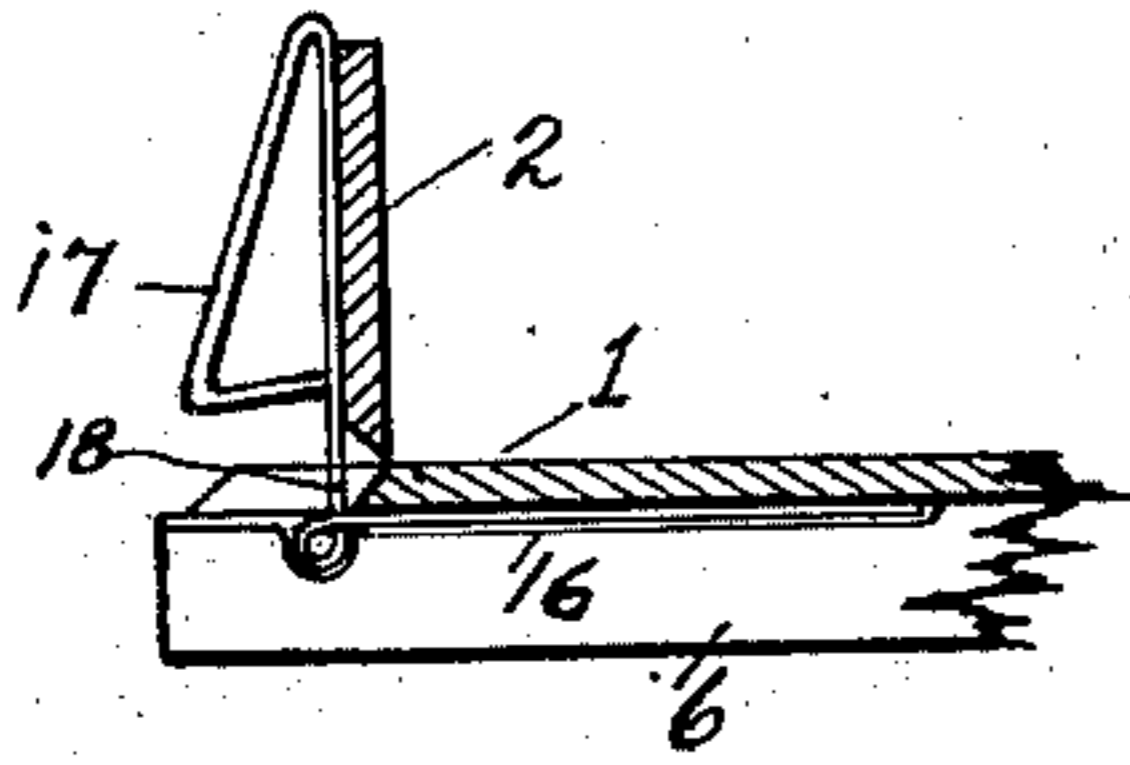
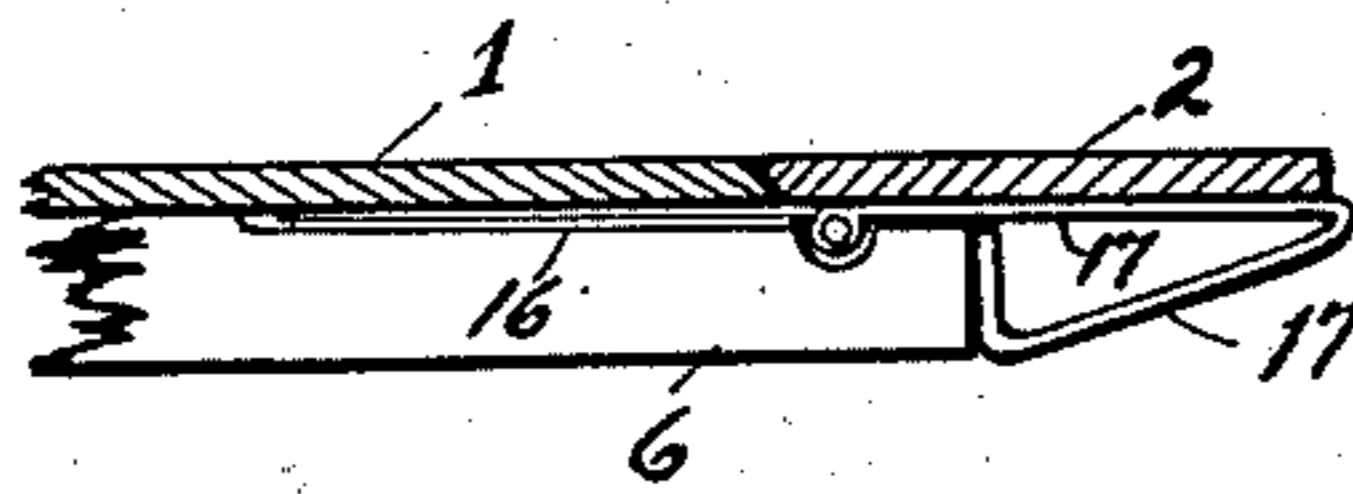


Fig. 4.



Witnesses
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UNITED STATES PATENT OFFICE.

IRA WILLIAMS, OF KENTON, OHIO.

COMBINED HAY-RACK AND WAGON-BOX.

SPECIFICATION forming part of Letters Patent No. 748,246, dated December 29, 1903.

Application filed November 14, 1903. Serial No. 181,155. (No model.)

To all whom it may concern:

Be it known that I, IRA WILLIAMS, a citizen of the United States, residing at Kenton, in the county of Hardin and State of Ohio, have invented new and useful Improvements in a Combined Hay-Rack and Wagon-Box, of which the following is a specification.

This invention relates to improvements in wagon-bodies, and more particularly to a combined wagon-box and hay-rack so constructed as to form a close-fitting box for grain or stock that can be easily and quickly converted into a hay or straw rack.

One of the objects of this invention is to construct a wagon-body for the purpose of carrying grain, having either of its sides adapted to be lowered to facilitate the loading or unloading of grain and at the same time make no opening through which the grain may be lost.

Another object is to provide a hinge for a wagon of this character by means of which a close connection is formed between the sides and bed both when the sides are vertical and when horizontal and which, together with the beveled edges of said sides and bed, prevents binding between the said parts.

To these ends the invention consists in the combination, construction, and arrangement of parts, as will be hereinafter described, and pointed out in the claims.

Referring to the drawings, in which similar reference characters indicate corresponding parts throughout all the views, Figure 1 is a perspective view of the invention as a wagon-box. Fig. 2 is a similar view with sides lowered for use as a hay-rack. Fig. 3 is a sectional view taken on line 3 3 of Fig. 1, and Fig. 4 is a sectional view showing one of the side-boards lowered.

In the drawings the wagon-bed 1 is provided with hinged side-boards 2 and removable front and rear gates 3 and with cross-pieces 4, 5, 6, and 7, cross-pieces 5 and 6 projecting slightly beyond and the cross-pieces 4 and 7 either extending to or terminating before reaching the beveled edges 8 of the said bed. The wagon-bed has also formed therein inwardly-beveled slots 9 and cut-away portions 10, directly over the ends of said cross-pieces, for purposes hereinafter described. The hinged side-boards 2 are be-

veled at 11 on their lower edges in an opposite direction to the bevel on the wagon-bed, so that when the said sides are lowered the bevels form a tight joint and prevent the grain from escaping. To further facilitate this close connection of the sides and wagon-bed, the hinges 12, 13, 14, and 15 are so arranged as to pass into the slots 9 and cut-away portions 10 a suitable distance within the edge of the wagon-bed, thus bringing the side-boards when in their upright or closed position inside of the said edge and fitting close to it when open. One of the members, 16, of the hinges connecting the side-boards to the wagon-bed is rigidly secured between the cross-piece and the wagon-bed, while the other member, 17, is secured to the side-board and has a reduced section 18, which is adapted to enter the slots 9 and the cut-away portions 10 of the wagon-bed. The members 17 of the two central hinges are carried up to the top edge of the side-board and then bent back upon themselves and then inwardly, forming triangles, the lower sides of which being adapted when the said sides are down to bear upon the ends of cross-pieces 5 and 6, thus forming a brace for the said side-board. The end hinge members 12 and 15 have pivoted to their upper ends links 19, the free ends of which engage when the side-boards are closed spring-hooks 20 and the projecting rods 21 on the end-gates 3, and thus securely hold the end-gates and sides together, and when the sides are down the said links rest in hooks 22, secured to each end of the cross-pieces 4 7. The said links thus perform the double function of serving as a brace for the side-boards when lowered and as a means for securing them when closed. The said hooks 22 are formed by having one end inserted between the said cross-pieces and the wagon-bed and the free end bent in the shape of a hook.

The front and rear end-gates are removably secured to the wagon-bed by means of arms 23, secured to the said gates and engaging with keepers 24 on the end cross-pieces.

In order to permit the ejection of any foreign substance—such as grain or chaff, &c.—which may accumulate in the slots 9, the inner edges thereof are beveled, so that upon the side-boards being raised to their vertical

position any such substance is forced out by the reduced section 18 of the hinge member 17.

To further prevent the loss of loose grain, &c., I provide fan-shaped boards 25, pivotally connected at 26 to the lower corners of the end-gates and removably connected by hooks 27 to the side-boards, so that when the sides are lowered the boards 25 are drawn with them and effectually cover the openings that would otherwise be formed between the end-gates and the sides. The said boards 25 also serve as a brace for the side-boards by means of the slot 28 reaching its limit and abutting against the stop 29 when the side-boards are down.

Braces or sills 30 are secured to the under sides of the cross-pieces and extend the entire length of the wagon-body for the purpose of affording greater strength and of raising the said body on the bolsters or running-gear of the wagon.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent of the United States, is—

1. In a combined hay-rack and wagon-body, a bed having beveled edges and beveled slots, end-gates, cross-pieces secured to under side of the said bed, beveled side-boards having hinges working in said slots, one member of said hinges being secured between said cross-pieces and bed, as set forth.

2. In a combined hay-rack and wagon-box, a bed having beveled edges and beveled slots, removable end-gates, cross-pieces secured to under side of said bed, beveled side-boards having hinges working in said slots, one member of said hinges secured between said cross-pieces and bed and the other member secured to the side-board and bent back upon itself in the form of a triangle, the lower por-

tion of which being adapted to rest upon the outer end of said cross-piece when the side is lowered, substantially as described.

3. In a combined hay-rack and wagon-box, a bed having cut-away corners, cross-pieces on the under side of said bed reaching to said cut-away portions, a hinge member secured between said cross-pieces and wagon-bed, the other member of said hinge being secured to the side-board and having pivotally secured in its upper end a link adapted to engage a spring-hook on the end-gate of wagon and an end-gate-securing pin, as set forth.

4. In a combined hay-rack and wagon-box, a bed having cut-away corners, cross-pieces on the under side of said bed, a hinge member secured between said cross-pieces and wagon-bed, the other member of said hinge being secured to side-board and having pivotally secured in its upper end a link adapted to engage a spring-hook and an end-gate-securing pin on the said end-gate, and a hook on the ends of said cross-pieces having one end secured between the cross-piece and wagon-bed and the free end bent to receive the end of said link, as set forth.

5. In a wagon-body, a bed having beveled edges, end-gates, beveled side-boards hinged to said bed, fan-shaped boards pivotally secured at their lower corners to the said end-gates and removably secured to said side-boards, and means for limiting the movement of said fan-shaped boards, as set forth.

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

IRA WILLIAMS.

Witnesses:

DORA ELLIS,
WILLIAM ELLIS.