4 Sheets—Sheet 1.

# W. T. BURROWS.

## Wagon-Rack.

No. 217,266. Patented July 8, 1879.

Fig. 1.

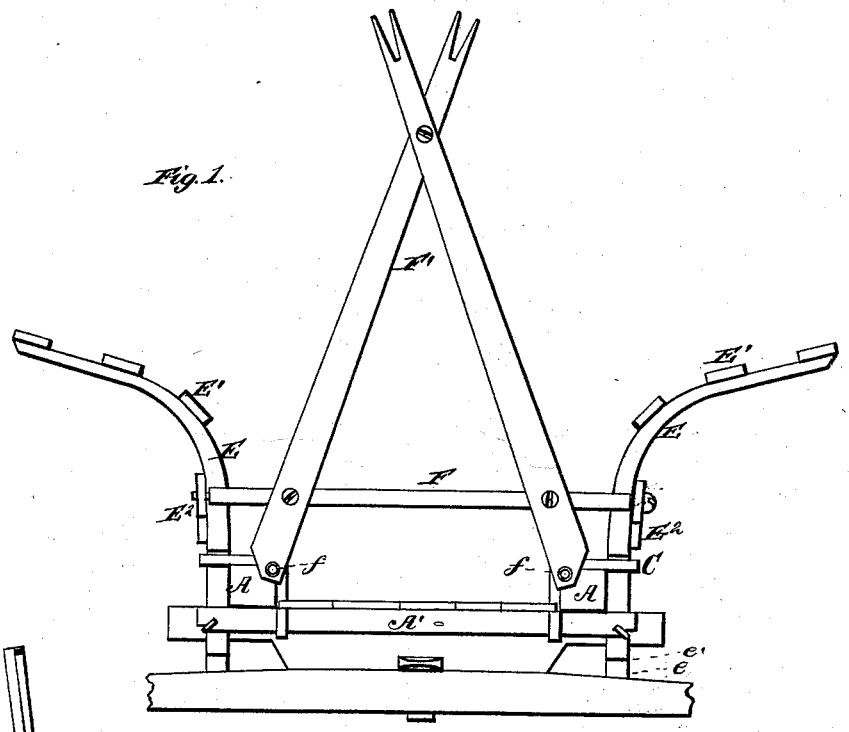
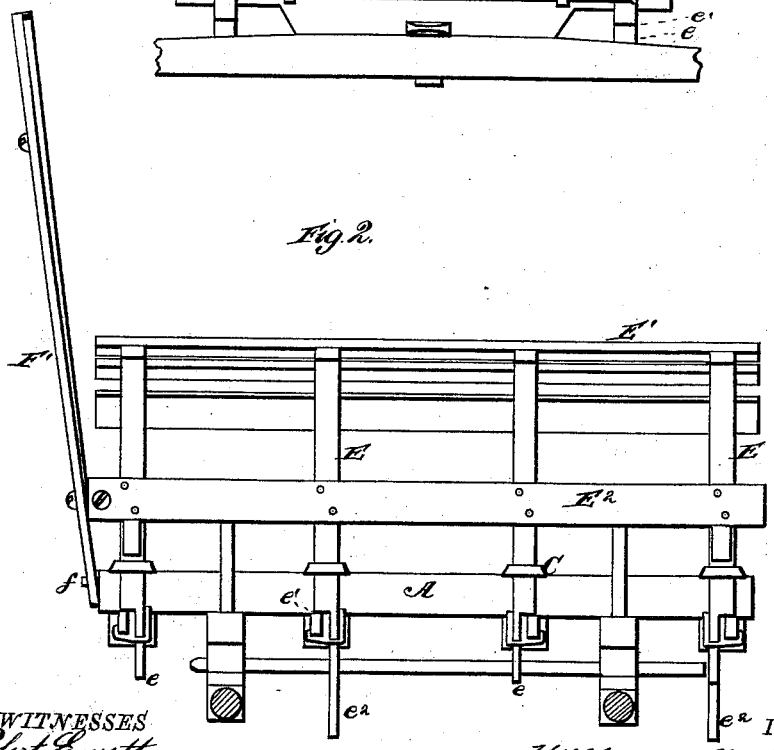



Fig. 2.

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## Wagon-Rack.

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Fig. 3.

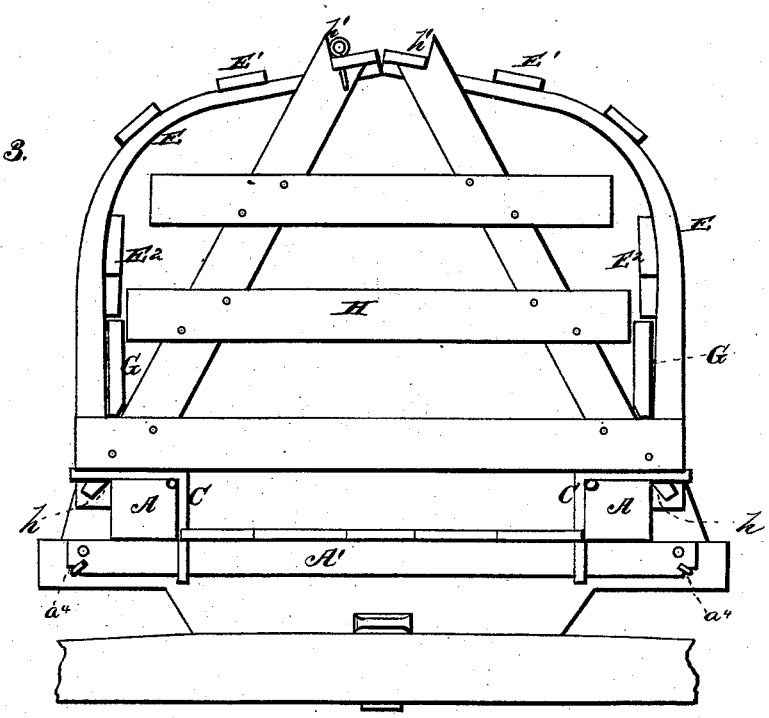
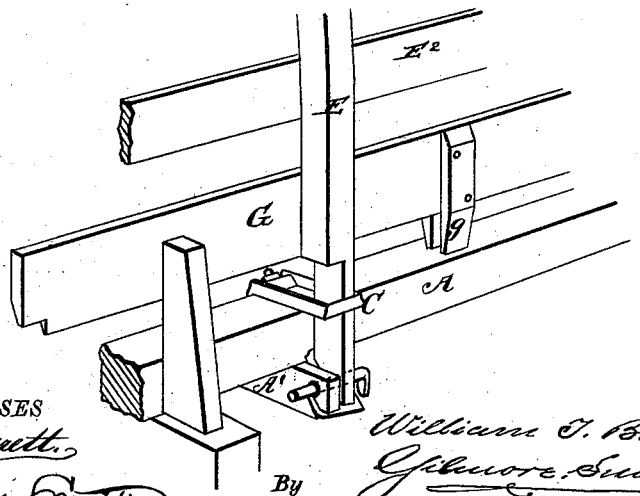



Fig. 4.

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## Wagon-Rack.

No. 217,266. Patented July 8, 1879.

*Fig. 5.*

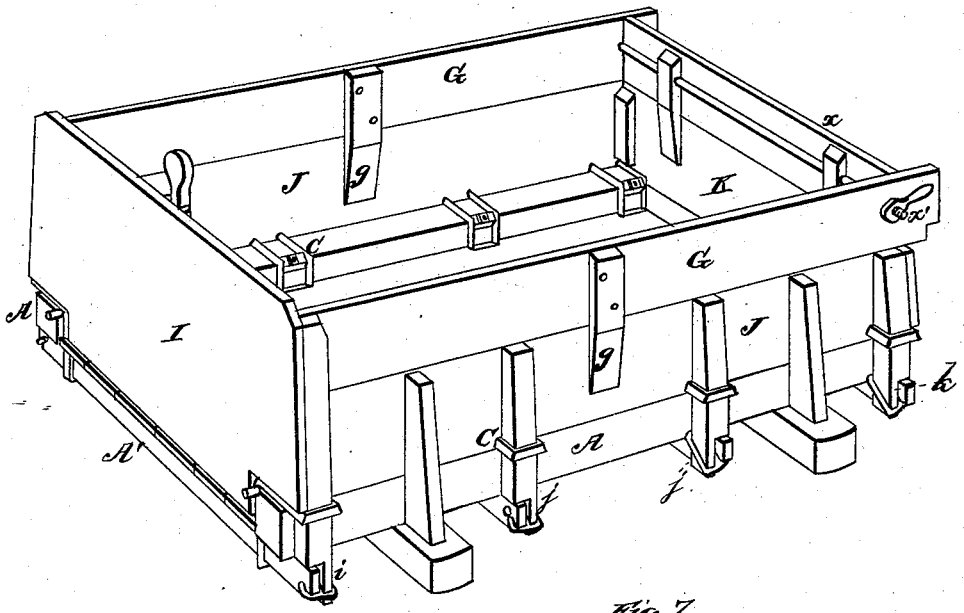



*Fig. 6.*

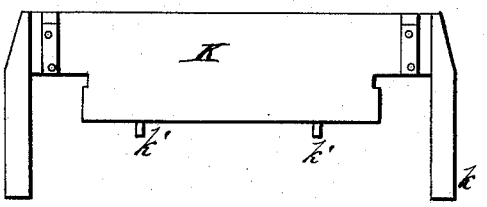
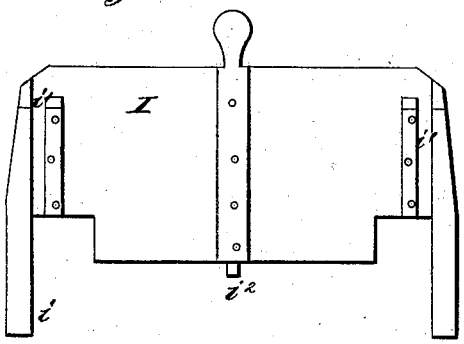



*Fig. 7.*

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## Wagon-Rack.

No. 217,266. Patented July 8, 1879.

*Fig. 8.*

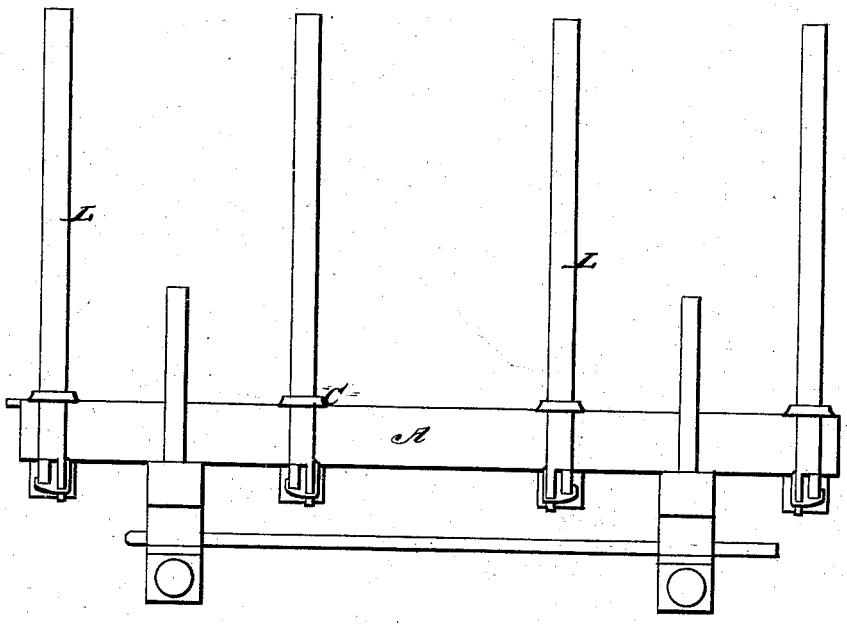
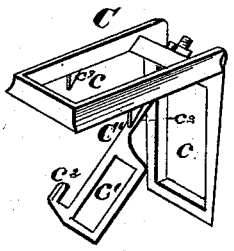



*Fig. 9.*

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# UNITED STATES PATENT OFFICE.

WILLIAM T. BURROWS, OF NASHUA, IOWA.

## IMPROVEMENT IN WAGON-RACKS.

Specification forming part of Letters Patent No. **217,266**, dated July 8, 1879; application filed December 7, 1878.

*To all whom it may concern:*

Be it known that I, WILLIAM T. BURROWS, of Nashua, in the county of Chickasaw and State of Iowa, have invented a new and valuable Improvement in Wagon Racks and Boxes; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of an end elevation of the hay-rack, and Fig. 2 is a side elevation of the same. Fig. 3 is an end elevation of the hog-rack; Fig. 4, a perspective detail view of the same. Fig. 5 is a perspective view of the box-body; Figs. 6 and 7, detail views of same. Fig. 8 is a side elevation of the wood-rack, and Fig. 9 a perspective view of the angle-iron and bolt.

My invention relates to a wagon-rack of such construction that by employing interchangeable independent pieces and parts, a hay-rack, hog-rack, wood-rack, or box-body may be formed at will; and the novelty consists in the construction and arrangement of parts, as will be more fully hereinafter set forth.

My invention is designed as an improvement upon my Patent No. 205,835, of July 9, 1878; and the improved features are as follows:

First, the curved sides have the lower longitudinal bar upon the outside when used as a hay-rack, allowing more room, and upon the inside when used as a hog-rack, to prevent the swine from rooting it off. Two of the curved standards upon each side have downward extensions with perforated extremities. When used as a hog-rack this construction allows the sides to be raised until the perforations correspond with perforations in the cross-bars, when a pin inserted through both holds the hog-rack up, giving a greater amount of room.

Second, in two side-boards having beveled shoulders at each end, as shown, and jaw-clamps near their centers. These boards serve as side-boards in the hog-rack, the jaws resting upon the side-bars or bed-pieces of the body, and as extension-sides in a box-body, the jaws engaging the sides of the box.

Third, in end-gates to the hog-racks, which operate in connection with the angle-irons below, and with the removable side-boards, and at the top are provided with shoulders, which receive the upper bars of the side racks and hold them firmly in place.

Fourth, in a front standard for the hay-rack. It consists in a rock-shaft removably pivoted to the lower bar of the curved sides, upon which shaft are rigidly secured two cross-standards, with apertures near their lower extremities, which receive pins or lugs stationary on the bed-pieces. This construction allows the standard to be folded in when not in use, and prevents it from rising when a binding-pole is employed.

The remaining features of my invention involve the angle-irons which hold the frame together and receive the interchangeable devices, and also the securing-rod, the construction and operation of which will be obvious from the following description and the accompanying drawings, which form a part of this specification.

Referring to the drawings, A represents the bed-pieces or parallel side pieces, and A′ the cross-bars, which are secured to the bed-pieces by means of angle-irons C C, which lie against the inner and top sides of the bed-pieces. The arms of these angle-irons extend beyond the bed-piece, and have in them slots or sockets *c c*, as shown, the one on the vertical arm receiving the cross-bar A′, and the one on horizontal arm receiving either of the interchangeable devices hereinafter described.

C′ C′ represent bolts, which pass diagonally through the bed-piece and through the angle of the angle-irons C, and are secured by nuts, as shown. The lower end of each bolt is formed with a rectangular socket, $c^1$, and a right-angled hook, $c^2$. The hook receives the end of the cross-bar A′ having recess $a^4$, and the socket is arranged below the slots *c c* in a right line, and receives the lower extremities of the interchangeable devices mentioned. The cross-bars A′ and bed-pieces A, being secured together by the angle-iron C and bolt C′, form a body, which rests on the bolsters (between the stanchions) of any proper wagon running-gear.

I prefer to arrange the bolts C′ in such a manner that the hooks $c^2$ will extend outward in each direction from the center of the bed-

piece; but this is not material, and may be changed without departing from the principle of my invention.

For convenience, and to make my invention perfectly clear, I will now proceed to describe my invention as a hay-rack.

E represents curved standards, connected by horizontal slats, the lower one of which, $E^2$, is arranged on the outer surface of the standards E, the others, $E^1$, upon the upper or inner sides. The front end of the slat $E^2$ is provided with a perforation to receive the gudgeon of a rock-shaft, F, upon which are rigidly secured two standards, F′, the lower ends of which are perforated to receive pins *f* upon the forward ends of the bed-pieces. When not in use this front standard folds back into the hay-rack, and when in use with a binding-pole the engagement of the pins *f* prevents the raising of or strain upon the rack. A screw acts as one of the gudgeons, as shown.

The curved standards E are provided at their lower extremities with tenons *e* and shoulders $e^1$, the latter adapted to rest upon the extended ends of the cross-bars A′, and the latter to operate in the sockets $c^1$ of the bolt C′. Two or more of these standards E have extended tenons $e^2$, with perforations near the ends thereof.

The angle-irons C have upon one of the inner or bearing faces of the arms sharp lugs $c^3$, which serve to hold the iron securely in position upon the bed-piece.

I will now reverse the curved side pieces, having them curve inward to form a hog-rack. In this case the tenons go only far enough into the sockets for the perforations in the tenons *e* to register with perforations in the ends of the cross-bars A′, when a pin is inserted through both. A loose board, G, having jaw-clamps *g* at or near the center thereof, is then placed against the inner side of the curved standards, and the upper surface or edge of this board G furnishes a bearing for a block fixed upon the standards, as shown.

H represents the end-gate, having a lower beveled portion, *h*, which engages in the slots *c* in the horizontal arms of the angle-irons, and right-angled recesses *h*′, which receive the upper slat of each side. A pin upon one of these slats upon each side, passing down outside the gate, holds it firmly in place.

In my box-body the head-board I has tenons *i*, which operate in the sockets *c* $c^1$, and a guide, $i^1$, in which work the forward ends of the side-boards J, which have tenons *j*, which operate in two or more of the intermediate sockets, and the tail-board K has tenons *k* which work in the rear sockets. Pins $i^2$ in the head-board and *k*′ *k*′ in the tail-board operate in proper holes in the bottom.

If it is desired to increase the capacity of the box for carrying corn and the like, the loose boards G are placed upon the sides J, the jaws *g* embracing the same, and a separate tail-board, *x*, is introduced, the whole being secured together by a rod and nut, *x*′, as shown.

To convert the device into a wood-rack, the stanchions L are introduced into the sockets, as shown.

It will thus be seen that by interchanging the parts with the base I can construct the four devices mentioned.

The hook $c^2$ is higher than the socket $c^1$, and it engages in a notch, $a^4$, in the cross-bars, as shown.

What I claim as new, and desire to secure by Letters Patent, is—

1. The removable and interchangeable curved standards E, having the horizontal slats $E^2$ upon the concave side, and slats $E^1$ upon the convex side, said standards being provided with tenons *e* and shoulders $e^1$ and extended tenons $e^2$, constructed and adapted to serve, relatively to the angle-irons C and bolt C′, as and for the purpose set forth.

2. The gates H, having beveled tenon *h* and right-angled recess *h*′, in combination with the curved sides and with the angle-irons, as and for the purpose set forth.

3. The combination of the removable rock-shaft F, perforated standards F′, horizontal slat $E^2$, and pins *f* upon the base, as and for the purpose set forth.

4. The angle-iron C, having sockets *c*, and bolt C′, having socket $c^1$ and hook $c^2$, in combination with the bed-piece A, cross-bars A′, and with the interchangeable devices described, as and for the purpose set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

WM. T. BURROWS.

Witnesses:

WM. S. FLEMING,

AARON DODGE.