

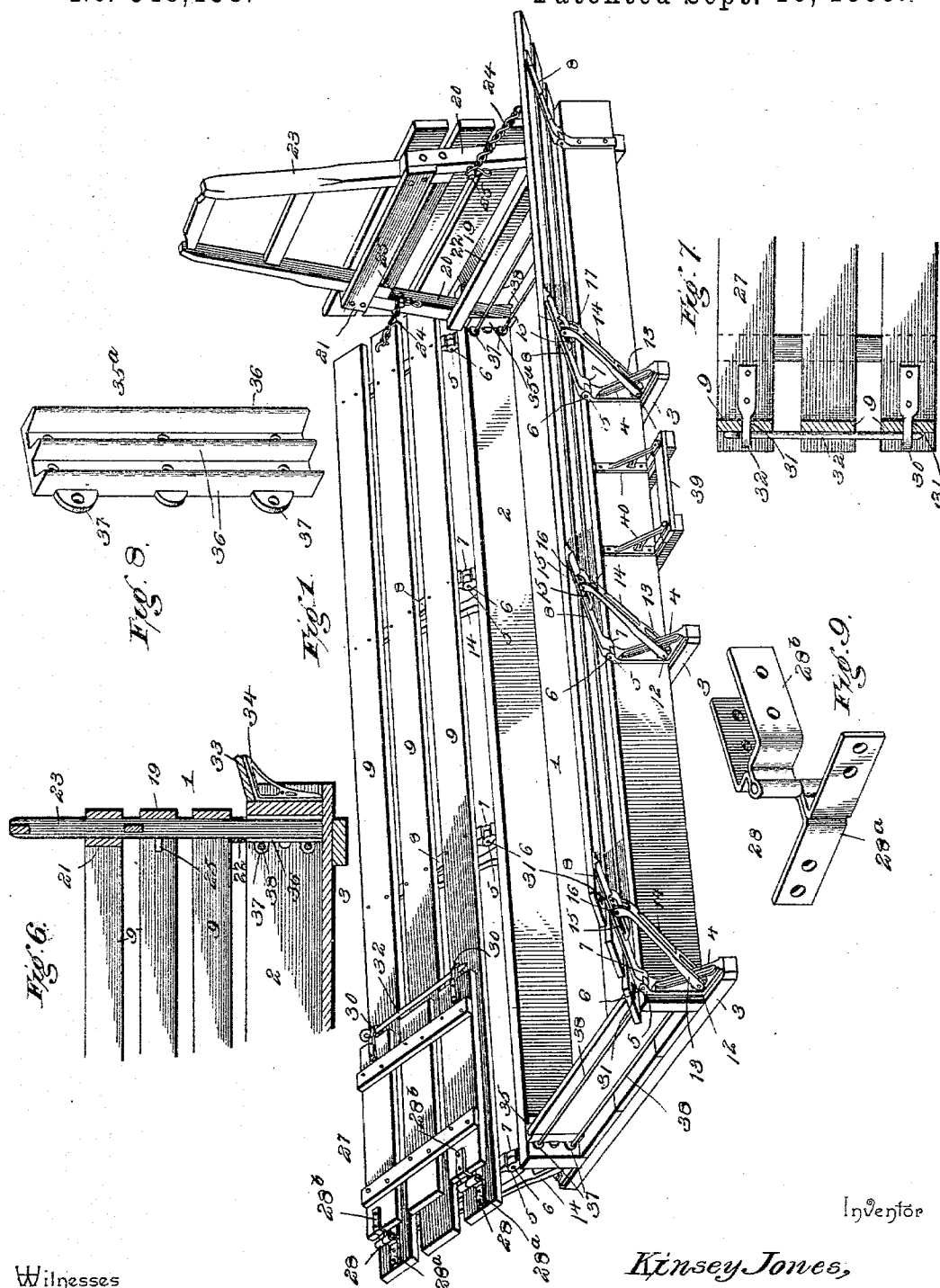
(No Model.)

2 Sheets—Sheet 1.

K. JONES.
COMBINED HAY AND STOCK RACK.

No. 546,158.

Patented Sept. 10, 1895.



Witnesses

John C. Shaw.
J. F. Piley

By Two Attorneys.

Kinsey Jones,

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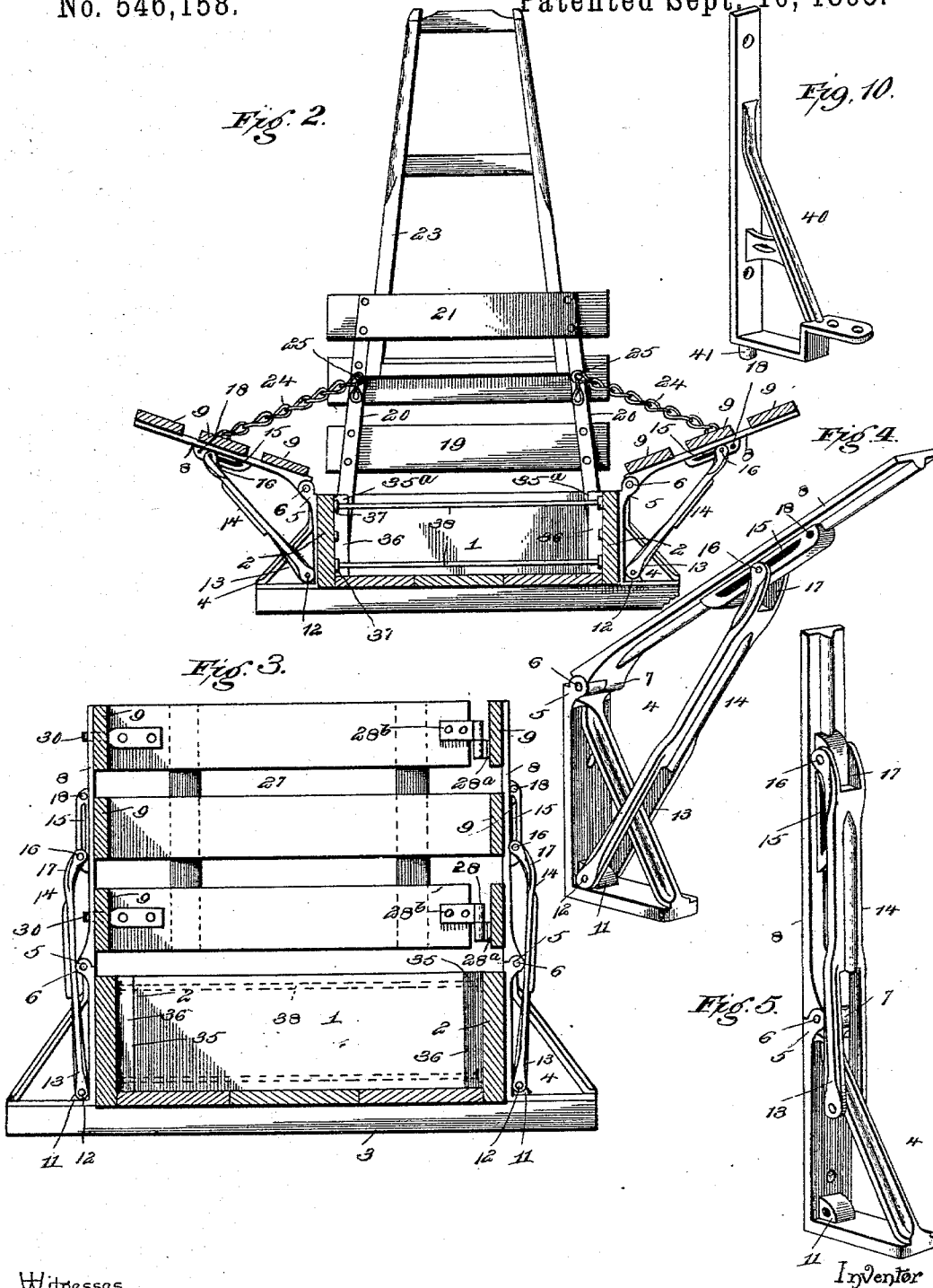
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J. H. Wiley

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UNITED STATES PATENT OFFICE.

KINSEY JONES, OF GALESVILLE, WISCONSIN.

COMBINED HAY AND STOCK RACK.

SPECIFICATION forming part of Letters Patent No. 546,158, dated September 10, 1895.

Application filed January 31, 1895. Serial No. 536,841. (No model.)

To all whom it may concern:

Be it known that I, KINSEY JONES, a citizen of the United States, residing at Galesville, in the county of Trempealeau and State of Wisconsin, have invented a new and useful Combined Hay and Stock Rack, of which the following is a specification.

The invention relates to improvements in combined hay and stock racks.

10 The object of the present invention is to improve the construction of stock and hay racks, and to provide a simple and inexpensive one which will be capable of being readily arranged to form either a stock or hay rack.

15 The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended.

20 In the drawings, Figure 1 is a perspective view of a wagon-body provided with my improvement, the parts being arranged to form a hay-rack. Fig. 2 is a transverse sectional view of the same. Fig. 3 is a similar view, the parts being arranged to form a stock-rack. Fig. 4 is a detail perspective view of the hinge connection between the sides of the rack and the wagon-body. Fig. 5 is a similar view showing the parts of the hinge connection arranged in a different manner from that shown in Fig. 4. Fig. 6 is a vertical sectional view of the front portion of the wagon-body and rack, showing the front standard lowered and illustrating the construction of the braces for supporting the foot-board at the front of the body. Fig. 7 is a vertical sectional view of one side of the rear portion of the rack, illustrating the manner of detachably securing the hinged end gate. Fig. 8 is a detail perspective view of one of the front cleats of the wagon-body. Fig. 9 is a detail perspective view of one of the hinges of the rear end of the rack. Fig. 10 is a detail perspective view of one of the supporting-brackets of the side steps of the body.

Like numerals of reference indicate corresponding parts in all the figures of the drawings.

1 designates a wagon-body of ordinary construction, provided with sides 2 and having transverse cleats 3, projecting beyond the

sides and extending across the lower face of the bottom of the body; and secured to the outer faces of the sides, and to the upper faces of the projecting ends of the transverse cleats, 55 are triangular bracket-irons 4. Each triangular bracket-iron consists of a vertical portion secured to the side of the wagon-body, a horizontal portion attached to the cleat, and a rigid inclined bracing portion; and it is provided at its top with an eye 5, which is hinged by means of a pintle 6 with a corresponding eye 7 of a leaf-bar or strap-iron 8, having secured to it the longitudinal slats or bars 9, which form one of the sides of a rack. The bracket 4 is provided at its angle with a perforated lug or eye 11, to which is removably hinged, by means of a pintle 12, the lower end 13 of an adjustable brace 14, extending from the triangular bracket to the leaf-bar or strap-iron 8. The leaf-bar or strap 8 is provided with a longitudinal enlargement, and has a longitudinal slot 15 therein, to receive a removable pintle 16, connecting the upper end of the adjustable brace 14 with the leaf-bar. The lower end of the adjustable brace 14 is bifurcated and straddles the rigid inclined portion of the triangular bracket 4, and the upper end 17 of the adjustable brace has a smaller bifurcation, which straddles the enlargement or boss of the leaf-bar 8. By this construction the sides of the rack are adapted to be arranged in a vertical position, as illustrated in Fig. 3 of the accompanying drawings, to provide a stock-rack or the like, and also to be arranged in an inclined position, as illustrated in Figs. 1 and 2 of the accompanying drawings, to form a hay-rack. When the sides of the rack are vertical, the wagon is adapted not only for stock, but its capacity is increased to enable it to haul a large quantity of any character of load—such as corn, potatoes, and the like. The leaf-bar 8 is provided in advance of the longitudinal slot with an eye 18 for the reception of the pintle 16, whereby the upper end of the adjustable brace is hinged at one point to the leaf-bar and is not adapted to move longitudinally of the same. The lower pintle of the adjustable brace is then removed to detach the adjustable brace from the perforated lug or eye at the angle of the triangular bracket, and this frees the lower

end of the brace 14 and enables the parts to be adjusted to raise and lower the sides of the stock-rack.

The front end of the stock-rack is rigidly secured to the wagon-body, and this front end 19 consists of horizontal slats or bars secured to inclined cleats or bars 20, arranged at an inclination and converging upward and connected by transverse pieces 21 and 22, whereby a way is formed for a vertically-adjustable standard 23. The standard 23 is adapted to be raised, as illustrated in Fig. 1 of the accompanying drawings, when it is desired to form a hay-rack, and it is secured in its elevated position by fastening devices disposed transversely of the vehicle and passing through the upper ends of the inclined bars or cleats 20 and the lower ends of the side pieces of the standard 23. The sides of the rack are supported in an inclined position by chains 24, secured to the sides of the rack and adapted to engage projections 25 of the front end of the rack. These projections 25 extend from the bars or cleats 20, and the chains serve as means for securing the front ends of the sides of the rack in a vertical position. The rear end 27 of the rack is hinged to one of the sides thereof at 28 and is adapted to fold down on the adjacent side when the parts are arranged to form a hay-rack, as illustrated in Fig. 1 of the accompanying drawings, and it is provided at its other side with projecting keepers 30, which, when the sides are arranged vertically, extend through openings 31 of the adjacent side and receive a removable rod 32 located on the outer face of the rack. By this construction the sides of the rack are firmly secured in a vertical position to form a stock-rack or the like. The hinges 28 consist of two leaves 28^a and 28^b, each having its pintle or eye offset to provide a slight space between the end of the gate 27 and the adjacent side of the rack to permit the end 27 to swing either forward or rearward. The forward swinging of the end 27 permits it to fold and lie flat against the adjacent side of the rack when the parts are arranged to form a hay rack, and its outward swinging permits the stock-rack to be opened and closed, as will be readily understood.

Each end-board of the box or wagon-body is supported by metal cleats 35 and 35^a, arranged vertically on the inner faces of the sides of the wagon-body and designed to be secured to the same by the fastening devices for attaching the adjacent hinges of the sides of the rack. Each front cleat 35^a is provided with three vertical flanges 36, forming inner and outer vertical grooves or ways, and arranged therein are the front end-board and standard. The end-board is arranged in the outer vertical groove or way, and the inner vertical groove or way of the cleat is adapted to receive removably the front standard. At their rear edges the vertical cleats 35 and 35^a are provided with perforated ears 37 for the

reception of the transverse rods 38, located near the top and bottom of the wagon-body. The rear cleats 35 are provided with two flanges for the reception of the end-gate.

The wagon-body is provided at each side with a step 39, which is arranged on the upper faces of projecting cleats, and the step is supported at its ends by substantially triangular brackets 40, having vertical inner sides secured to the outer faces of the sides of the wagon-body. Each bracket is provided at its lower inner angle with a depending stud fitting in a socket of the adjacent cleat, and the bottom of the bracket is angularly bent to provide an upwardly offset outer portion to fit against the upper face of the step, the inner portion of the bottom of the bracket fitting against the upper face of the adjacent cleat. The brackets firmly support the step, and also serve to strengthen the wagon-body.

The leaf 28^a of the hinge 28 is secured to the adjacent side of the rack, and the other leaf 28^b preferably consists of a metal strap rectangular in form and straddling the adjacent terminal of the contiguous bar of the end 27.

The foot-board 33 at the front of the body is supported by brackets or knees 34, secured to the front end-board of the body and having inclined upper portions secured to the lower face of the board 33.

It will be seen that the combined hay and stock rack is simple and comparatively inexpensive in construction, and that it is susceptible of easy conversion to change it from one form of rack to the other. It will also be apparent that the hinged connection between the sides of the rack and the sides of the body is capable of being adjusted to change the form of the connection and the arrangement of the adjustable brace.

Changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

What I claim is—

1. In a combined hay and stock rack, the combination with a wagon body and a side of a rack, of a triangular bracket secured to the body and arranged on the exterior of the side of the same and provided at its top at the upper edge of the body with an eye and having at its base a perforated lug or eye, a leaf bar secured to the side of the rack and provided at its lower end at the lower edge of the side of the rack with an eye hinged to the eye at the top of the bracket, and hinging the side of the rack to the upper edge of the side of the body, said leaf bar being provided with an enlargement and having a longitudinal slot therein, and an adjustable brace having its lower portion bifurcated and straddling the triangular bracket and hinged to the eye or lug at the bottom thereof, said brace having its upper portion bifurcated and provided

with a pintle arranged in the longitudinal slot of the leaf bar, substantially as described.

2. In a combined hay and stock rack, the combination with a wagon body and a side of
5 a rack, of a triangular bracket arranged vertically on the exterior of the side of the body and provided at the upper edge thereof with an eye and having at its bottom in its angle a perforated lug or eye, a leaf bar disposed
10 transversely of the side of the rack and provided at the lower edge thereof with an eye hinged to the eye at the top of the bracket, and hinging the rack to the body said leaf bar being secured to the side of the rack and
15 provided with an enlargement and having a longitudinal slot therein and provided adjacent to the slot with an eye, and an adjustable brace having its lower portion bifurcated and straddling the bracket and detachably
20 hinged to the perforated lug or eye at the bottom thereof, said brace having its upper portion bifurcated and provided with a removable pintle arranged in the slot and adapted to fit the eye of the leaf bar, substantially as described.
25

3. In a combined hay and stock rack, the combination of a wagon body, hingedly mounted sides, the front end of the rack rigidly secured to the body and provided on its inner
30 face with a way, a vertically movable standard mounted in said way and adapted to be raised when the parts are to be used as a hay rack, and to be lowered when the same is to be em-

ployed as a stock rack, and means for securing the standard in its elevated position, substantially as described. 35

4. In a combined hay and stock rack, the combination of a wagon body, the hingedly mounted sides, the front end of the rack rigidly secured to the body and provided with a way, 40 the vertically movable standard slidingly mounted in said way, means for securing the standard in its elevated position and the rear end of the rack hinged to one side thereof and detachably secured to the other side, and 45 adapted to fold against the side to which it is hinged, substantially as described.

5. In a combined hay and stock rack, the combination of a wagon body, the hingedly mounted sides, the rear end of the rack, hinges 50 connecting the rear end of the rack with one of the sides and having their pintles and eyes offset from the leaves, whereby the rear end of the rack is adapted to swing forward, as well as rearward, and adapted to fold against the 55 side to which it is hinged and means for securing the rear end of the rack to the other side of the same, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature 60 in the presence of two witnesses.

KINSEY JONES.

Witnesses:

J. F. CANCE,
A. C. BOHRNSTEDT.