(No Model.)

S. E. COMBS.

HAY AND STOCK RACK.

No. 368,653. Patented Aug. 23, 1887.

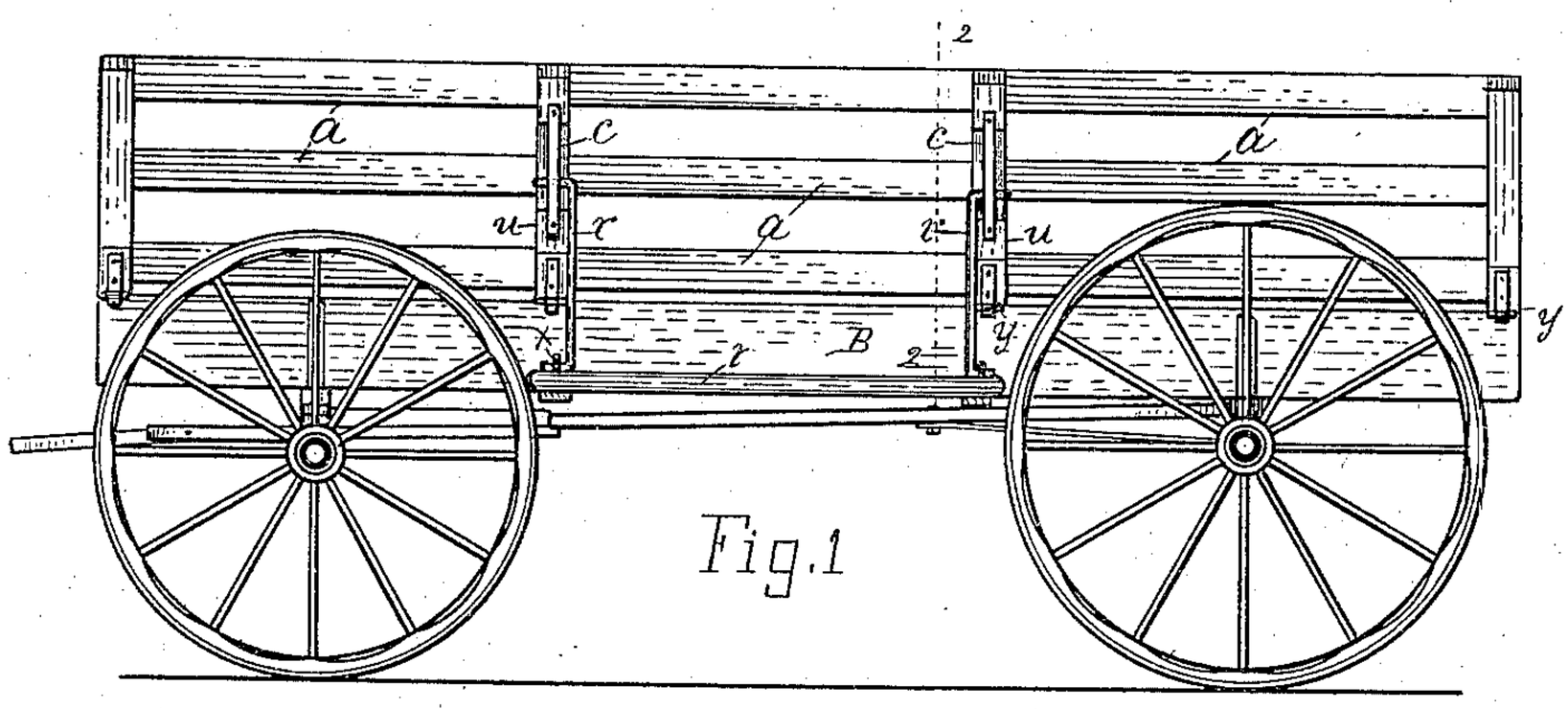


Fig. 1

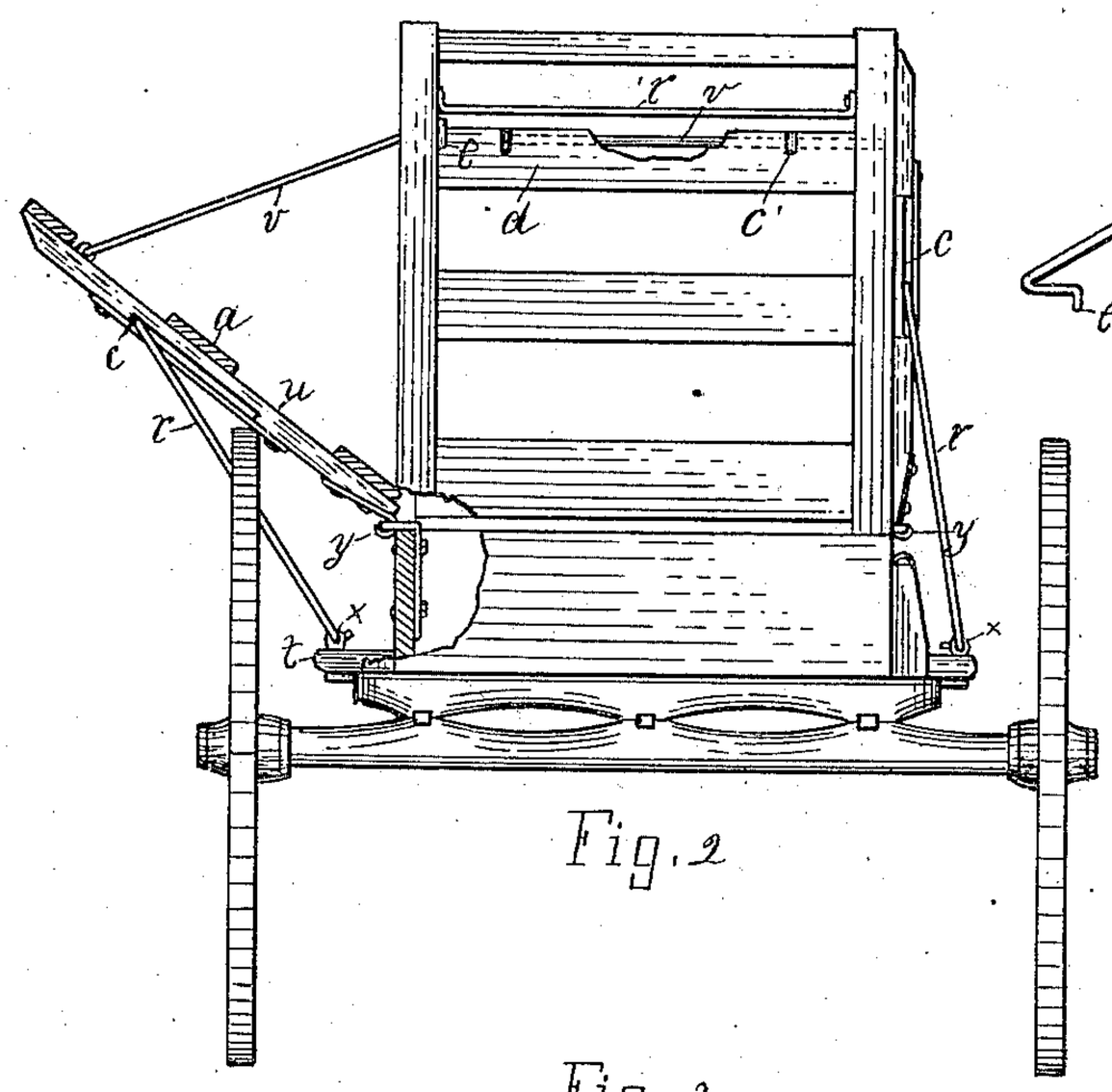


Fig. 2

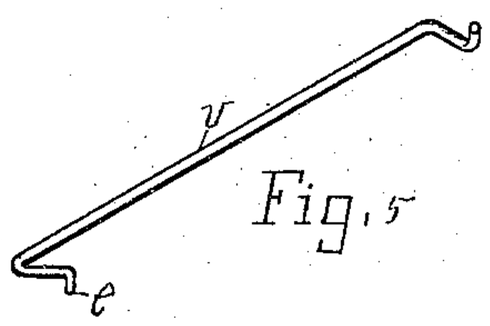
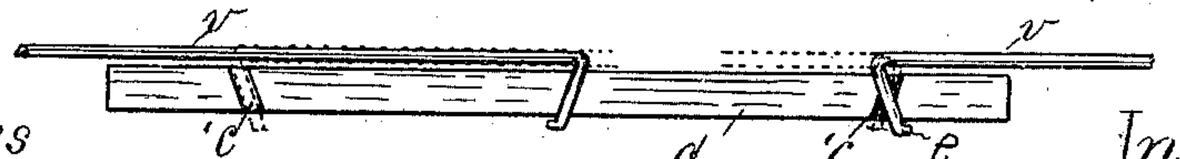


Fig. 5

Fig. 3



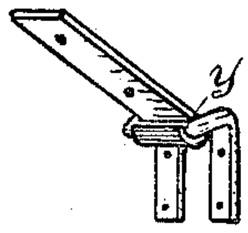


Fig. 4

Witnesses
John C. Perkins.
Stephen D. O'Brien.

Inventor.
S. Edson Combs.
By Lucius C. West.
Atty.

UNITED STATES PATENT OFFICE.

S. EDSON COMBS, OF KALAMAZOO, MICHIGAN.

HAY AND STOCK RACK.

SPECIFICATION forming part of Letters Patent No. 368,653, dated August 23, 1887.

Application filed April 14, 1887. Serial No. 234,823. (No model.)

To all whom it may concern:

Be it known that I, S. EDSON COMBS, a citizen of the United States, residing at Kalamazoo, county of Kalamazoo, State of Michigan, have invented a new and useful Hay and Stock Rack, of which the following is a specification.

This invention has for its object certain improvements, substantially as below described and claimed.

In the drawings forming a part of this specification, Figure 1 is a side elevation; Fig. 2, an end elevation with parts in section on the dotted line 2 2 in Fig. 1; Fig. 3, a plan of lettered details in Fig. 2; and Figs. 4 and 5 are perspective views of lettered details in Fig. 2.

Referring to the lettered parts of the drawings, B is an ordinary wagon-box. At *a* are shown side panels, the lower edges of which are hinged to the upper edge of the wagon-box on each side. The hinges *y* consist of a loop on the box and a hook on the panel, so as to be readily unhooked when detaching the panels from the box. Any other suitable hinge may be employed.

The wagon-box is provided with a panel, *d*, at each end. The ordinary end-boards to the box B may be taken out and the end panels put in in lieu of them, or the end panels may be attached to the end-boards, so as to be detached in accordance with the different uses of the rack. When the end panels, *d*, are in and the side panels, *a*, are upright against them, as in Fig. 1 and at the right hand in Fig. 2, the rack constitutes the ordinary stock-rack. In connection with these parts my peculiar plans for bracing and locking are important features in the invention. Rods *v* are hinged to each end of the side panels at the upper edge. The other end of the rods *v* is bent at an angle to the rod, and is inserted in the space between the rod *r'* and one of the slats of the end panels. The end of the angled portion of the rod *v* is bent downward to catch over the side of the panel-slat, as at *e*, to keep this end from lateral displacement, and the rod *r'* prevents it from flying upward. In the upper edge of the panel-slat, Fig. 3, near each end, is an oblique slot, *c'*, the angle of the slot on one side of the rack conforming to the angled end of the rod *v* on the opposite side of the rack. Thus, when the side panels are swung up to make a stock-rack, the end of the rods *v* will pass over to the first slot *c'*, and will drop into the slot on the opposite side, and thus lock the side panels in their upright position. The central portion of the side panels is braced, when swung down to form a hay-rack, by rods *r*, which rods are similar to rods *v*. Their upper ends play in elongated slots *c* in the central standards of the side panels, and their turned end (same as *e* of rod *v*) catches over the side of the standards to keep them from lateral displacement. The lower ends of the brace-rods *r* are detachably hinged to the side ledge, *t*, of the wagon-box B.

To convert the stock-rack into a hay-rack, raise the end of the rods *v* out of the slots *c'* and swing the side panels down to an oblique angle. (See left of Fig. 2.) In this position the angled end of the rod *v* catches against the standard of the end panel. Thus the rods *v* are braces to sustain the ends of the side panels, and the upper ends of rods *r* contact the upper end of the slot *c*, and thus brace the central portion of the side panels. Neither of the rods *r* or *v* has to be touched when converting the rack into a rack for stock, because said rods automatically assume their proper place and function by simply swinging the side panels upward.

To detach the side panels from the wagon-box, raise the ends of the rods *v* out of the recesses *c'* and swing the rod laterally out of the recess beneath the rod *r'* of the end panel, detach the lower end of the rod *r* from its connection at *x*, and unhook the hinges *y*.

Having thus described my invention, what I claim is—

1. The combination of a wagon-box, end panels having the oblique slots in one of the slats of said panels and a horizontal recess above said slotted slats, the side panels hinged to the side-boards of the box, the rods hinged to the end of the side panels at the upper side, and having the angled ends adapted to play in the said horizontal recess and to engage the oblique slots, and the central brace-rods hinged at their lower end and angled at their upper end, and loosely inserted in elongated slots in the central standards of the side panels, substantially as set forth.

2. In a combined hay and stock rack, the combination of a wagon-box and side panels hinged to said box, with means for locking the side panels in an upright position, consisting of the end panels having the recess and oblique slots and the rods hinged to the side panels and provided with the angled ends adapted to play in said recess and to enter said slots, substantially as set forth.

3. A combined hay and stock rack comprising a wagon-box, end panels having the horizontal recess and oblique slots, the side panels detachably hinged to the side-boards of the wagon-box, rods hinged to the upper edge of the side panels, and having angled ends detachable in the recess of the end panels and adapted to play therein, side ledges projecting from the wagon-box, elongated slots in the standards of the side panels, and brace-rods detachably hinged to the side ledges, and having angled ends detachably and loosely inserted in the slots of the slats of the standards, substantially as set forth.

In testimony of the foregoing I have hereunto subscribed my name in presence of two witnesses.

S. EDSON COMBS.

Witnesses:

CHARLES H. BOOTH,

JOSEPH E. KELLOGG.