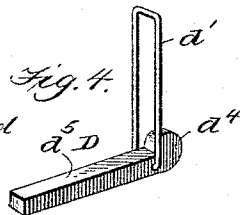
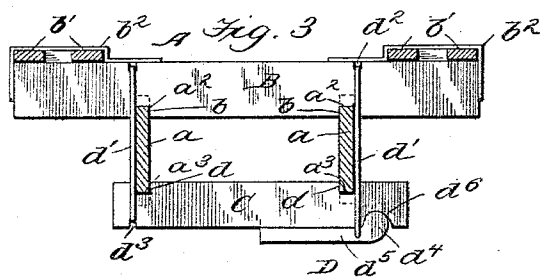
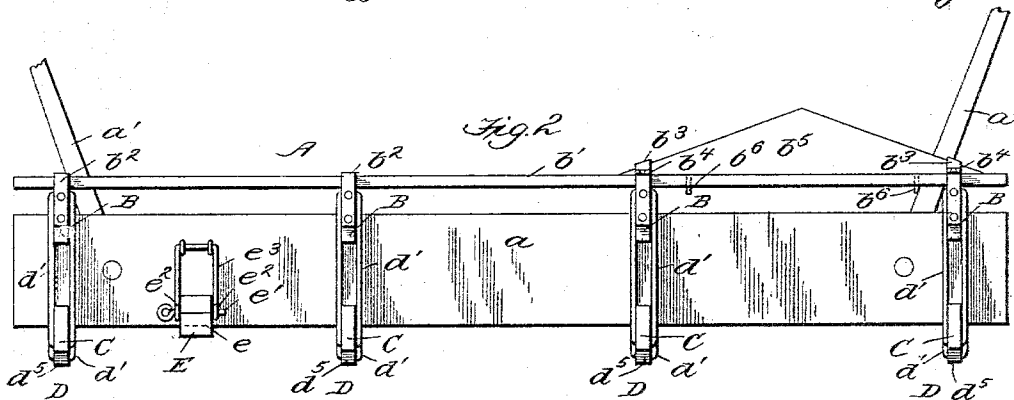
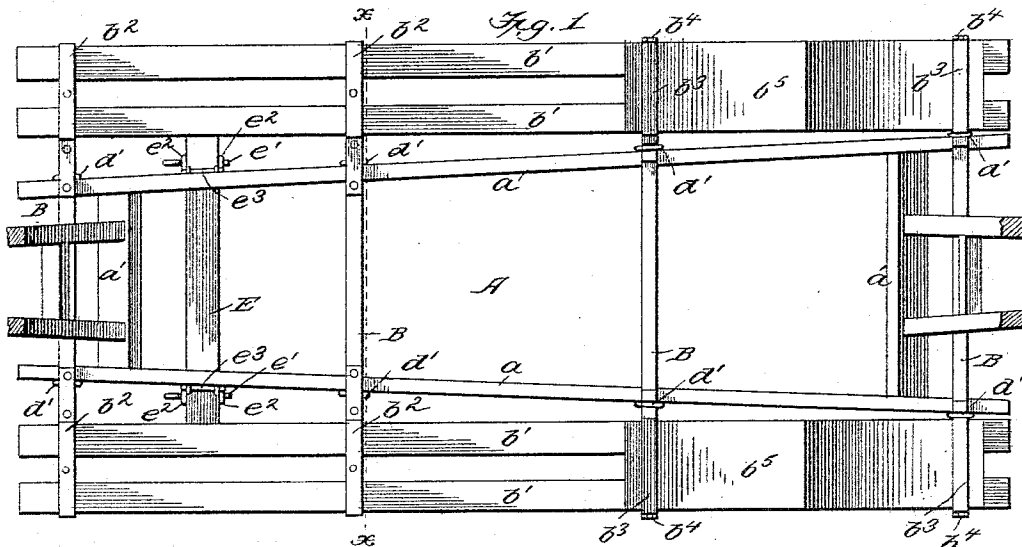


(No Model.)

D. L. NOBLE.  
HAY BACK.

No. 531,743.

Patented Jan. 1, 1895.



Witnesses:

Edmund L. Bradford

Ralph Womelle

Fig. 4.

Inventor  
Daniel L. Noble

By  
Patrick O'Connell

ATTORNEY

# UNITED STATES PATENT OFFICE.

DANIEL L. NOBLE, OF MILLERSBURG, ILLINOIS.

## HAY-RACK.

SPECIFICATION forming part of Letters Patent No. 531,743, dated January 1, 1895.

Application filed April 9, 1894. Serial No. 506,873. (No model.)

*To all whom it may concern:*

Be it known that I, DANIEL L. NOBLE, a citizen of the United States of America, residing at Millersburg, in the county of Mercer and State of Illinois, have invented certain new and useful Improvements in Hay Racks or Frames for Wagon-Bodies, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to a new and improved hay-rack or frame for wagon bodies.

The object of the invention is to provide a rack or frame of this character in which the parts are removable and can be readily separated for storing away, the same occupying but little space.

The invention comprises a frame having corresponding side-bars, laterally extended cross-bars or braces, and means for removably connecting said cross-bars to said side-bars.

The invention further comprises a frame having corresponding side-bars, upper and lower cross-bars, links connecting said upper and lower cross-bars, and means for binding said links and holding said cross-bars in place.

The invention also comprises the details of construction, combination and arrangement of parts, substantially as hereinafter fully set forth and particularly pointed out in the claims.

In the accompanying drawings:—Figure 1 is a plan view of my improved hay-rack or frame. Fig. 2 is a view in side elevation. Fig. 3 is a cross-sectional view on the line  $x-x$ , Fig. 1. Fig. 4 is a detail view of one of the links and its clamp.

Referring to the drawings, A designates the rack or frame having longitudinal side-bars  $a$  between which are mounted the ordinary pivoted end-frames  $a'$ . At periodical distances in the upper edges of these side-bars are formed notches or recesses  $a^2$  while on the under side are corresponding notches  $a^3$ , the latter being directly under the former.

B designates an upper series of cross-bars which are provided on their under sides with notches or recesses  $b$  designed to fit in the upper notches or recesses  $a^2$  of the side-bars  $a$ . The ends of cross-bars B are extended laterally beyond the side-bars  $a$  and are designed to support slats  $b'$  forming an extended platform or support for the hay.

These slats are held in place by straps  $b^2, b^3$ . The straps  $b^2$  are rigidly secured to said cross-bars, while the two sets of straps  $b^3$  are pivoted at  $b^4$  and are designed to extend over the ends of the wheel-guards  $b^5$  and thus lock the latter in position over the wheels of the truck or wagon. Pins or studs  $b^6$  project from the lower edges of the wheel-guards  $b^5$  and fit in suitable holes or openings in the slats  $b'$ , said pins serving as additional means for holding said wheel-guards in position.

C designates the lower series of cross-bars which also have notches or recesses  $d$  designed to engage the notches or recesses  $a^3$  of the side-bars  $a$  in a manner similar to the cross-bars B.

D is a series of clamps for securely locking the upper and lower cross-bars to the side-bars  $a$  and thus further insure the rigidity of the frame. Each clamp has a link  $d'$  which is passed over the ends of cross-bars B and C and rests in grooves or recesses  $d^2, d^3$  thereof, the grooves  $d^2$  of the cross-bars B being formed under the straps  $b^2$  while the free ends of straps  $b^3$  are passed under said links and are firmly locked thereby. The links on one side of the rack or frame are passed through the cam-ends  $d^4$  of levers  $d^5$ , said cam-ends fitting in cut-away portions  $d^6$  of the cross-bars C which form the fulcrum for said levers, whereby the parts will be firmly locked when said levers are pushed into place against the under side of each of the cross-bars C, thus binding the upper and lower series of cross-bars by the series of links.

E is an additional brace having recesses  $e$  in which fits the under side of the side-bars  $a$  and said brace is locked in position by means of a pin  $e'$  passed through a hole or opening therein and coincident eyes  $e^2$  of a stirrup  $e^3$ .

The advantages of my improved hay-rack or frame are apparent and it will be understood that the parts can be readily unlocked and separated and stored away in a minimum space, and when again required for use said parts can quickly and easily be positioned and firmly locked together.

I claim as my invention—

1. A hay rack comprising side bars, upper and lower cross bars having their ends extended beyond the side bars, links connecting the extended ends of the cross bars, and a cam

lever applied to the end of one set of the links, whereby the rack may be readily tightened and loosened, substantially as described.

2. A hay rack comprising side bars, upper 5 and lower cross bars having their ends projected beyond the side bars, links applied to the projected ends of the cross bars, and cam levers applied to one end of the links and adapted to work in a recess in the cross bars, 10 substantially as specified.

3. In a hay rack, the combination with the frame, of wheel guards held to the frame by dowels, straps pivoted at one end to the frame and adapted to extend over the wheel guards, 15 and means to secure the free ends of the straps, substantially as described.

4. A hay rack comprising side bars, upper and lower cross bars, wheel guards, straps pivoted at one end, and links to secure the free 20 ends of the straps and the upper and lower cross bars together, substantially as specified.

5. In a hay rack adapted to be taken apart, a cross stay bar notched near its ends to engage with the side bars of the rack, swinging

stirrups having eyes in the free ends, and pins 25 to pass through the said eyes and corresponding openings in the said stay bar, substantially as specified.

6. The herein described hay rack composed of side bars having corresponding notches in 30 their upper and lower edges, upper and lower cross bars notched to receive the notched edges of the side bars and having their ends extended, slats placed on the end extensions of the upper cross bars, straps securing the 35 slats in place, wheel fenders mounted on the slats and held in place by some of the said straps which are pivoted at one end, links securing the upper and lower cross bars together and the free ends of the pivoted straps, 40 and locking levers applied to one end of the links, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

DANIEL L. NOBLE.

Witnesses:

J. L. TERRY,  
D. STIVENS.