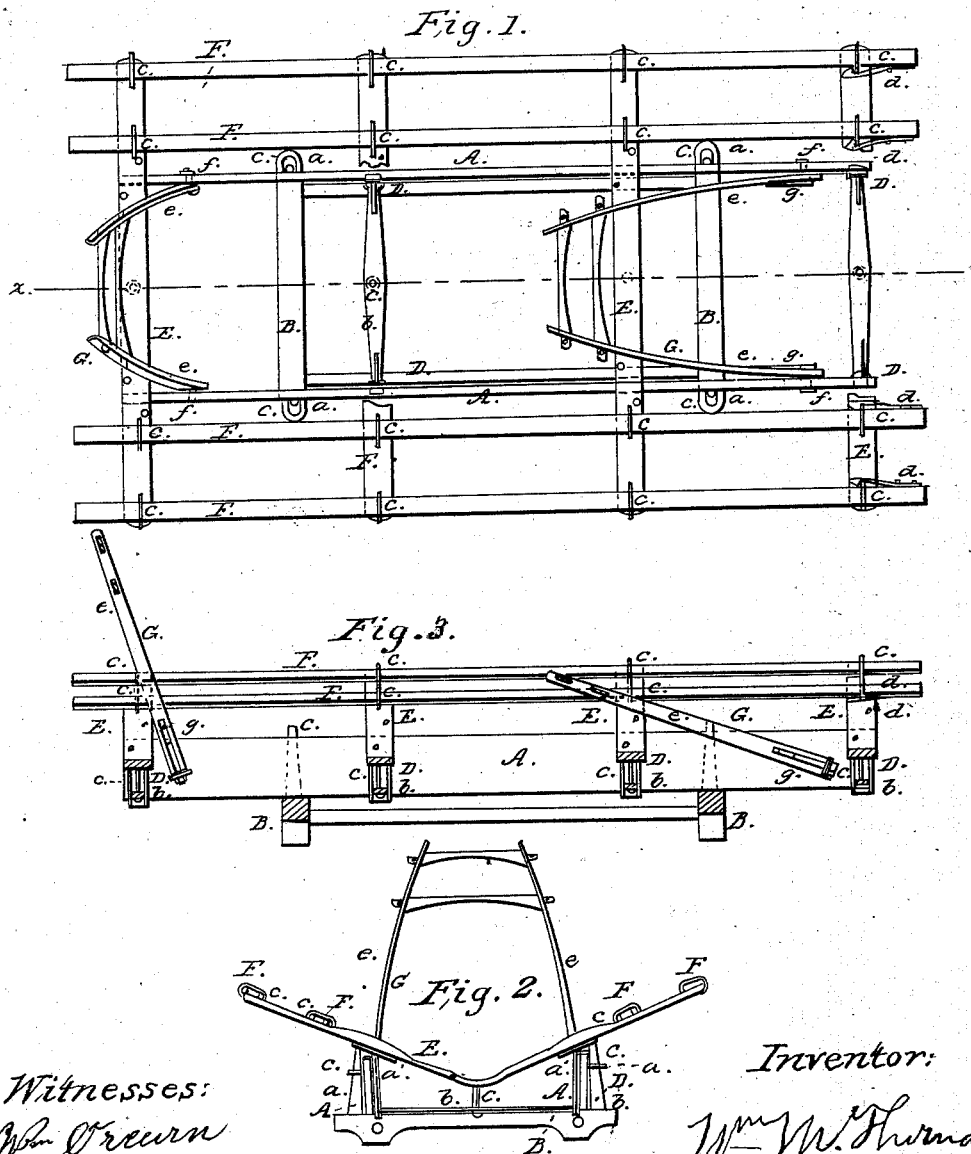


W. M. THOMAS.

Hay-Rack.

No. 49,455.

Patented Aug 15, 1865.



Witnesses:
Wm. O'Brien
Chas. Foster

Inventor:
Wm. M. Thomas
By *[Signature]*
attor.

UNITED STATES PATENT OFFICE.

WILLIAM M. THOMAS, OF BINGHAMTON, NEW YORK.

IMPROVEMENT IN HAY-RACKS FOR WAGONS.

Specification forming part of Letters Patent No. 49,455, dated August 15, 1865.

To all whom it may concern:

Be it known that I, WILLIAM M. THOMAS, of Binghamton, in the county of Broome and State of New York, have invented a new and Improved Hay and Grain Rack; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a plan or top view of my invention; Fig. 2, an end view of the same; Fig. 3, a side sectional view of the same, taken in the line *x x*, Fig. 1.

Similar letters of reference indicate like parts.

This invention relates to a new and improved hay and grain rack for wagons and carts; and it consists in constructing the rack in such a manner that it may be applied to and removed from a wagon or cart with the greatest facility by a single individual and placed or stored away in a very small space when not required for use.

A A represent two side pieces, which rest on bolsters *B*, and have staples *a* at their outer sides to fit on fenders *C*, secured to the ends of the bolsters. The inner surfaces of the side pieces, *A A*, have metal guide-plates *D* attached to them, four being shown in Fig. 3, but more or less may be used. These guide-plates may be constructed of sheet metal swaged to form three sides of a quadrangle, or they may be cast in such form.

E represents the "crooks," which are of the usual shape, (see Fig. 3,) and project at equal distances beyond the side pieces, *A A*. These crooks are provided with pendent plates *a' a'*, the lower ends of which are connected by a bar, *b*, stayed at their center by a vertical rod, *c*, from the center of the bottoms of the crooks. (See Fig. 3.) The pendent plates *a' a'* and bar *b* of each crook are fitted in the guide-plates *D*,

and are thereby held in position transversely with the side pieces, and may be readily adjusted thereto and removed therefrom. The ordinary plan is to bolt the crooks to the side pieces.

F represents the slats, which, instead of being permanently secured to the crooks, as hitherto, are fitted in staples *e* thereon, and secured at one end by a spring-catch, *d*. (Shown more particularly in Fig. 1.) By this arrangement the slats may be very readily adjusted to the crooks and removed therefrom.

G G are the ladders, which may be constructed in the usual way, but are attached to the side pieces, *A A*, in a novel manner by having the lower ends of their sides *e* inserted in loops at the inner ends of bolts *f*, which pass through the side pieces, the lower ends of *e* being secured by spring-catches *g*. By this arrangement the ladders may be raised or lowered, as required, with the greatest facility; and it will be seen that all the parts of the rack may be disconnected or taken apart and adjusted together with the greatest facility, and the rack placed upon or taken from a wagon or cart without any difficulty whatever, and by a single person, and stowed away within a very small space; and in consequence of the absence of bolt-holes the parts may be made lighter than usual, and be equally as strong.

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

A rack for hay and grain, having its several parts secured together in the manner substantially as shown and described, to admit of said parts being fitted together and taken apart and adjusted to the wagon and taken therefrom with the greatest facility, and also of being stowed away in compact form when not required for use.

WM. M. THOMAS.

Witnesses:

JOSEPH GIBSON,
JAMES P. FULTON.