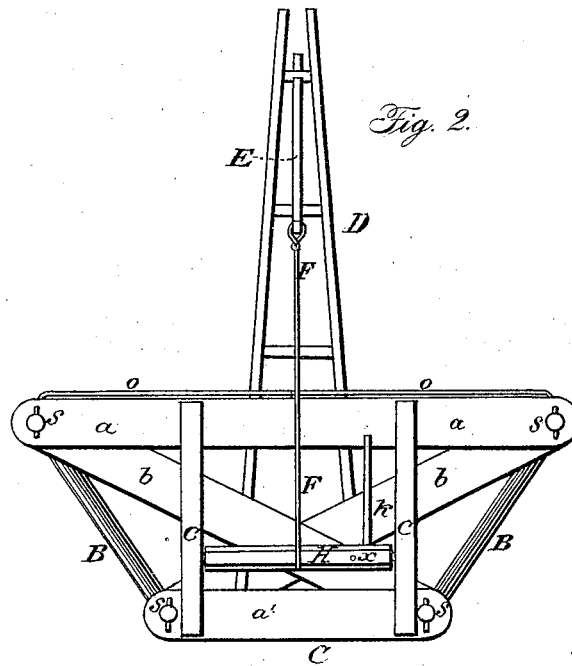
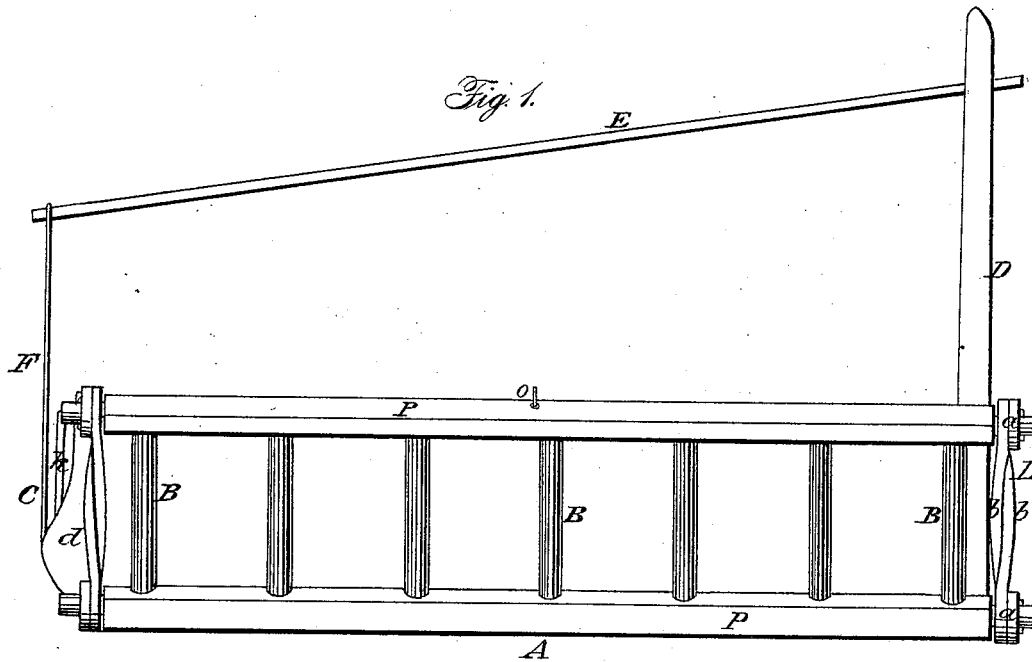


W. E. GRIMES.

Hay-Rack.

No. 53,814.

Patented Apr. 10, 1866.



Witnesses:

*John D. Jacobs,*  
*Frank T. Barker.*

Inventor:

*W. E. Grimes*  
*per*  
*Alexander & Mason*  
*Attys*

# UNITED STATES PATENT OFFICE.

W. E. GRIMES, OF ALLEN, MISSOURI.

## IMPROVEMENT IN HAY-RACKS.

Specification forming part of Letters Patent No. 52,814, dated April 10, 1866.

*To all whom it may concern:*

Be it known that I, W. E. GRIMES, of Allen, in the county of Randolph and State of Missouri, have invented certain new and useful Improvements in Hay-Racks; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings and the letters of reference marked thereon, making a part of this specification.

The invention herein described consists in an adjustable hay-rack to place upon a wagon and to more easily compress the hay when placed within the rack. This rack is composed of five distinct sections, as seen in the accompanying drawings, A, (A,) C, L, and D.

The sections A are composed of two longitudinal pieces of scantling, P P, connected together by braces B, and at a suitable distance from each other. At each end of the scantlings P are tenons, for the purpose hereinafter described. These sections are made in the form of any ordinary ladder, but formed into the hay-rack, are set nearer together at the bottom than at the top, and act as the sides of hay-rack.

L represents the front gate, which secures the two sections A at the front end. Suitable openings are made in the four corners of this gate for the tenons on the scantlings P P to pass through, where they are secured by pins *s*. This gate is composed of four bars, one at the top, *a*, and one at the bottom, *a'*, with two pieces, *b b*, extending from top to bottom and crossing each other near their centers. Each piece of this gate is firmly secured to the other, making the whole as one section. This section L is secured to the sections A by pins *s* at the tenons in the bars P P, which can be taken out whenever desired and the entire section L taken from the sections A.

C represents the rear gate, which is made in the same form as the gate L, and connects the rear ends of the sections A in the same manner as the gate L connects the front ends of the same. *c c* are two uprights secured to the section C. Between these uprights is a windlass,

H. This windlass is worked by a lever, K, which is merely placed in one of the holes in the windlass. Said windlass has several holes at suitable distances from each other to allow the lever K to be placed.

D is the ladder. This ladder has a roller at the bottom, and is set between the two bottom opposite scantlings, P, of the sections A. This ladder is made in the known or ordinary form, and by means of the roller at its bottom can be drawn to slant slightly to the rear, or can be placed vertical, as desired.

E represents the booming-pole. This pole has a rope fastened at one end. The other end of the said pole, when in use, rests under one of the rounds in the ladder.

F is the rope. One end of this rope is fastened to the windlass H, while the other is secured to the end of the pole E, as heretofore described.

*o* represents a metallic brace or chain, which extends from side to side of the sections A, near their centers, and keep the sections more secure.

By extracting the pins *s* from the tenons this rack is taken apart and can be placed in any desired place.

By turning the lever K the rope F is wound around the windlass H, which brings down the end of the pole E. The other end of said pole being held under the round of the ladder D, the hay in the rack is compressed and held in its place.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

The arrangement of the sections A, C, L, and D with the windlass H and pole E, as and for the purpose herein specified.

In witness that I claim the foregoing I have hereunto set my hand in the presence of two witnesses.

W. E. GRIMES.

Witnesses:

CHAS. TISUE,  
JOSEPH P. CROWDER.