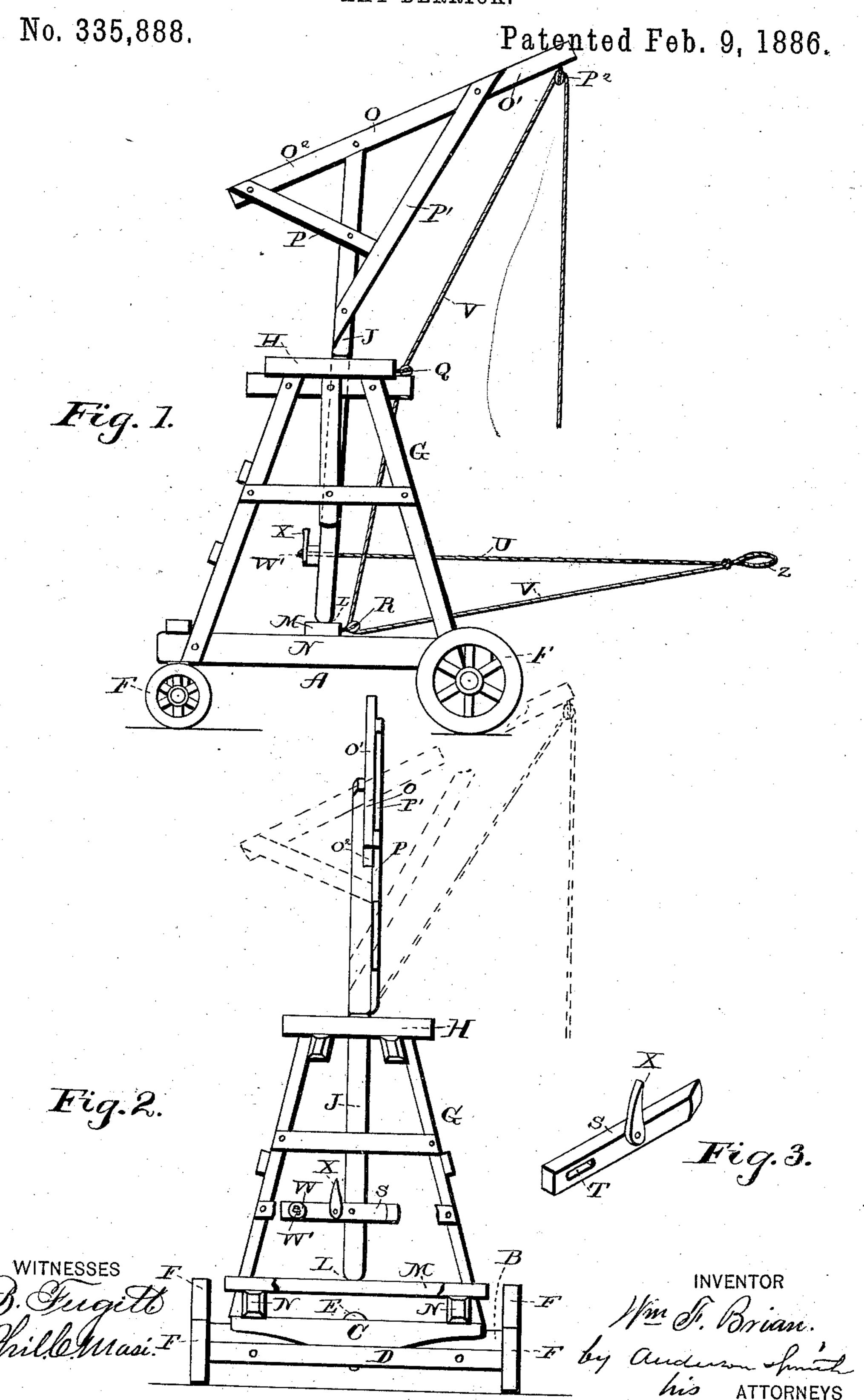
W. F. BRIAN.
HAY DERRICK.



## United States Patent Office.

## WILLIAM FRANKLIN BRIAN, OF PARKVILLE, ILLINOIS.

## HAY-DERRICK.

SPECIFICATION forming part of Letters Patent No. 335,888, dated February 9, 1886.

Application filed December 8, 1885. Serial No. 185,079. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM F. BRIAN, a citizen of the United States, residing at Parkville, in the county of Champaign and State of Illinois, have invented certain new and useful Improvements in Hay-Derricks; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

Figure 1 of the drawings is a side view of my hay-derrick. Fig. 2 is a front view.

This invention relates to hay derricks designed to be used in building hay stacks or ricks in the field; and it consists in the construction and novel combination of parts, as will be hereinafter fully described, and par-

ticularly pointed out in the claim. Referring by letter to the accompanying drawings, A designates the bed-frame, which is mounted on a rigid gear-axle, B, and is pro-25 vided with a rigid bolster, C, at its front end, which is connected to the front axle, D, by a king-bolt, E, in order that the front axle, D, may be turned to guide the truck. Fare the wheels, which are made sufficiently small in diame-30 ter to permit the truck-frame A to come near enough to the ground to bring the elevatingrope low enough to be conveniently operated. A derrick-frame, G, is built upon the truckframe A, and is provided with a platform, H, 35 at its upper end, which is provided with an opening, I, a little to one side of the center, and the derrick-pole J has its upper bearing in this opening or hole I. The lower end of the derrick-pole J is stepped in a seat, L, 40 made in the middle of the cross-bar M, secured upon the sills N N of the truck-frame midway their ends. At its upper end the derrick-pole J is provided with an inclined bar, O, the longer arm O', of which extends 45 upwardly and the shorter arm, O2, of which extends downwardly. Braces P P' connect the inclined bar O with the derrick-pole, and serve to strengthen the said inclined bar O. At or near its upper end the inclined bar O is 50 provided with a pulley, P2, which depends from

the under side of said bar O. The platform H is provided at its rear edge or side with a pulley, Q, and the cross-bar M is provided about midway of itslength with a pulley, R. Near its lower end the derrick-pole J is provided with 55 a short horizontal bar, S, the longer arm of which is provided with a horizontal lateral slot, T, through which the portion U of the hoisting-rope V passes. The end of the portion U of the hoisting-rope is provided with 50 a slotted wear-plate, W, and a knot, W', is tied in the end of the portion U, to prevent the rope from drawing through the plate and slotted arm. The portion V of the hoistingrope passes under the pulley R, up and over 65 the pulley Q, and thence over the pulley P<sup>2</sup>, and is passed down to and connected with the hay-fork. The horse is hitched to the loop z at the junction of the portions V and U of the hoisting-rope. The location of the knot 70 W' can be changed to shorten or lengthen the portion U, of the hoisting-rope, and this portion U, when the rope is drawn out taut, causes the derrick-pole to turn in its bearings, and carries the inclined bar O around one- 75 fourth of a circle, at which time the fork is tripped by an attendant, and the forkful of hay is deposited at the desired point, where it may afterward be manipulated to form the stack or rick. The short horizontal bar S is 80 provided with a short metal piece, X, which is pivoted to the face of said arm, and is intended to permit the rope to be wound around it to hold it when not in use.

Having described this invention, what I 85 claim, and desire to secure by Letters Patent, is—

The combination, with the truck and derrick-frame, of the derrick-pole having the inclined bar at its upper end and the slotted 90 horizontal bar near its lower end, the pulleys P<sup>2</sup>, Q, and R, and the hoisting-rope having the portions V and U, the latter being knotted at its end, substantially as specified.

In testimony whereof I affix my signature in 95 presence of two witnesses.

WILLIAM FRANKLIN BRIAN.

Witnesses:

W. S. BRIANT, I. N. DARR.