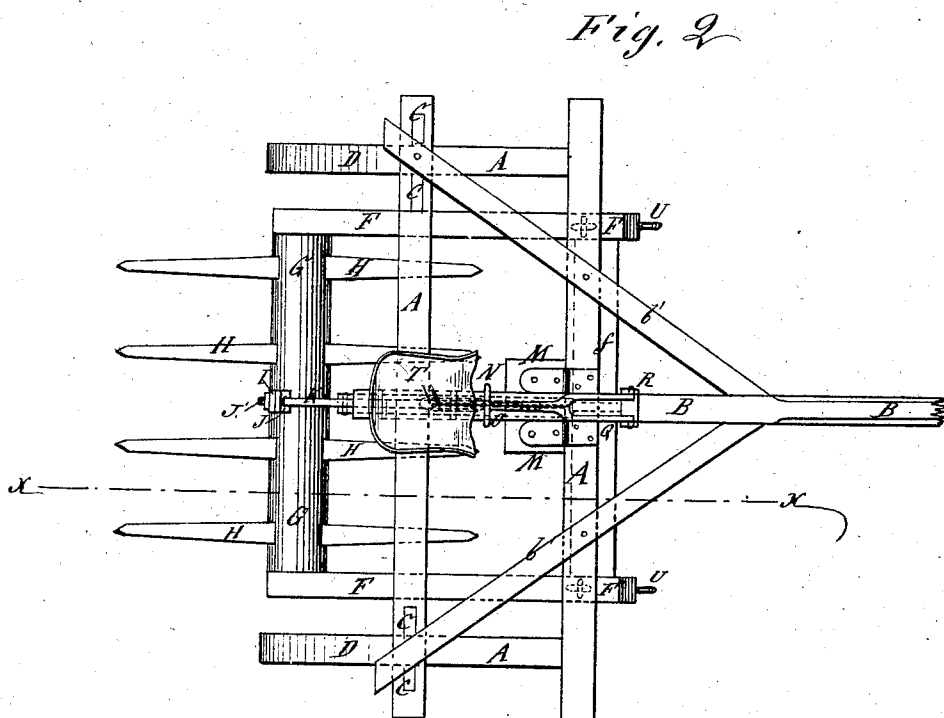
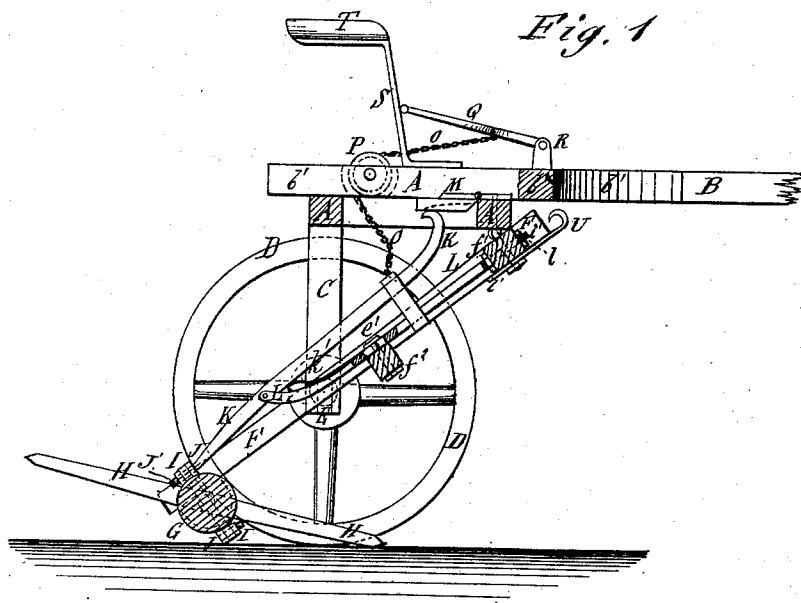


J. H. RANDOLPH, Jr.
Revolving Horse Rakes.

No. 166,030.

Patented July 27, 1875.



WITNESSES:
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UNITED STATES PATENT OFFICE.

JOHN H. RANDOLPH, JR., OF BAYOU GOULA, LOUISIANA.

IMPROVEMENT IN REVOLVING HORSE-RAKES.

Specification forming part of Letters Patent No. **166,030**, dated July 27, 1875; application filed March 1, 1875.

To all whom it may concern:

Be it known that I, JOHN HAMPDEN RANDOLPH, Jr., of Bayou Goula, in the parish of Iberville and State of Louisiana, have invented a new and useful Improvement in Sulky Hay-Rake, of which the following is a specification:

Figure 1 is a vertical section of my improved hay-rake. Fig. 2 is a top view of the same.

Similar letters of reference indicate corresponding parts.

My invention has for its object to furnish an improved sulky-rake, designed especially for pulling pea-vines for hay, and leaving them in bunches to dry, and which shall be simple in construction, of light draft, easily manipulated and controlled, and effective in operation.

The invention will first be fully described, and then pointed out in the claims.

A is a light frame, to which the tongue B and hounds or braces *b'* are securely attached. To the end parts of the rear cross-bar of the frame A are attached two pairs of hangers, C, which are strengthened by braces, and between which are placed the wheels D. The wheels D revolve upon short axles E, the ends of which are flattened, are inserted in slots in the lower ends of the hangers C, and are secured by bolts. To the forward cross-bar of the frame A are hinged the forward parts of the side bars F, which are connected near their forward ends by a cross-bar, *f*¹, and at their middle parts by a cross-bar, *f*². To and between the rear ends of the side bars F is pivoted the roller G, to which the rake-teeth H are attached. The rake-teeth H pass through the roller G, and project upon both sides, as shown in Figs. 1 and 2. Through the middle part of the roller G, and at an angle with the plane of the teeth H, is passed an iron rod, I, to the ends of which, upon the opposite sides of the roller G, are secured stop-blocks J, to receive the end of the holding-lever K. The stop-blocks are detachably secured to the plate or rod I by means of bolts and nuts *J'*, so that they can be readily removed when it is desired that the teeth should assume a greater degree of inclination.

By the provision of the detachable stop-

blocks any pitch of the rake-teeth may be given, and the stops can also be thickened to the required point by applying one or more additional pieces thereto.

The lever K is pivoted to the lower end of the bar L, and its upper end is bent over and rests against the under side of the foot-board M, the forward edge of which is hinged to the forward cross-bar of the frame A, so that the driver, by pressing the board M down with his feet, raises the lower end of the lever K away from the block J, and allows the rake-head to revolve to discharge the collected hay. The lever K is held in place against the block J by a spring, *k'*, attached to the bar L, and which presses against the under side of the said lever K, above its pivoting-point. The bar L is slotted longitudinally to receive the bolt *e'*, by which it is secured to the lower cross-bar *f*² of the rake-frame F. The upper end *l* of the bar L has a screw-thread cut upon it, passes through the forward cross-bar *f*¹ of the rake-frame F, and has two nuts, *l' l'*, placed upon it, one upon each side of the said cross-bar *f*¹, so that by loosening the bolt *e'* and adjusting the nuts *l' l'* the bar L may be moved to adjust the lever K, as required. To the bar L is attached a block or stud, N, to which is attached the end of the chain O. The chain O passes over a pulley, P, pivoted to the frame A, through a slot in the seat-standard, and its other end is attached to a lever, Q, the forward end of which is pivoted to a stud, R, attached to the forward cross-bar of the frame A. The rear end of the lever Q projects back nearly to the seat-standard S, so that by raising the rear end of the lever Q the rake-frame and rake-head will be raised away from the ground for convenience in passing from place to place. By turning the lever Q down forward or toward the tongue B, the rake-frame and rake-head will be locked in their raised position. T is the driver's seat, which is attached to the upper end of the standard S. The standard S is slotted, so that the chain O can pass through it. The draft-hooks U are attached directly to the forward ends of the side bars of the rake-frame F, so that the sulky may be drawn from the said frame F. This arrangement makes the draft more di-

rect and lighter, and at the same time enables the sulky-frame A to be made lighter than would otherwise be necessary.

It will be observed that the rake-frame F is placed beneath the sulky-frame A, which makes the machine stronger and of lighter draft, and brings it more fully under the control of the driver.

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

1. The combination of the rod I and the detachable stop-blocks J with the roller G of

the rake-head, to receive the end of the holding-lever K, substantially as herein shown and described.

2. The combination of foot-board M, hinged to the main frame A, the lever K, the adjustable slotted bar L, secured to the rake-frame F, and the spring *k'*, for holding and tripping the rake-head, substantially as herein shown and described.

JOHN HAMPDEN RANDOLPH, JR.

Witnesses:

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