

S. A. & L. M. KAYS.
Horse Rake.

2 Sheets—Sheet 1.

No. 64,329.

Patented April 30, 1867.

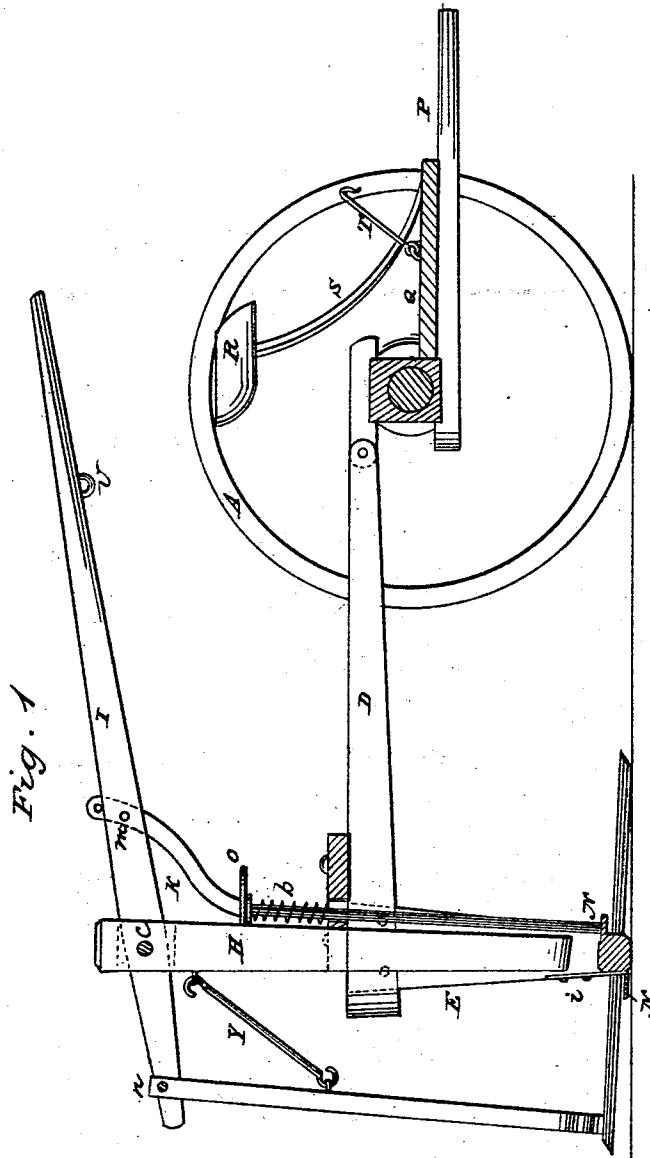


Fig. 1

Witnesses:
Theo Fusch
W. Freun

Inventors:
S. A. Kays
L. M. Kays
Per munn & Co
Attorneys

S. A. & L. M. KAYS.

Horse Rake.

No. 64,329.

Patented April 30, 1867.

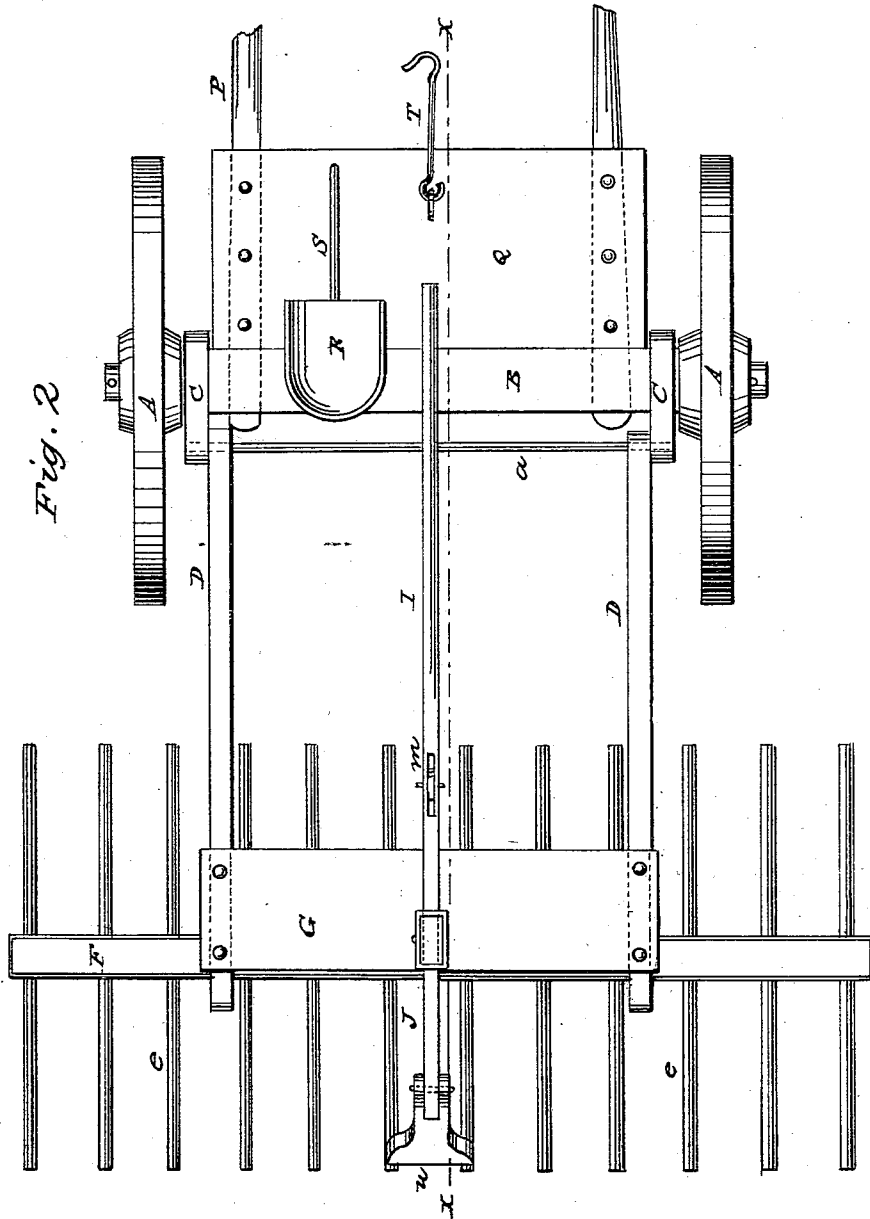


Fig. 2

Witnesses:
Geo. Fusch
Wm. Frewin

Inventors
S. H. Kays
L. M. Kays
per Munn & Co
Attorneys

United States Patent Office.

S. A. AND L. M. KAYS, OF INDEPENDENCE, IOWA.

Letters Patent No. 64,329, dated April 30, 1867.

IMPROVEMENT IN HORSE-RAKES.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that we, S. A. and L. M. KAYS, of Independence, in the county of Buchanan, and State of Iowa, have invented a new and improved Sulky-Rake; and we do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, forming part of this specification. It consists in the peculiar arrangement of levers by which the rake is operated by the driver.

To enable others skilled in the art to make and use our invention, we will proceed to describe its construction and operation.

Figure 1 is a longitudinal vertical sectional elevation of our improved sulky-rake.

Figure 2 is a top plan view of the same.

Letters of like name and kind refer to like parts in each of the figures.

A A represent two wheels of common construction and of proper dimensions, which run on the axle-tree B. To the axle-tree B are rigidly secured two blocks C C, to which are connected, by a long pivot-bolt, *a*, the draw-bars D D, so that the rear ends of the said bars may be elevated or turned, as desired, upon the said pivot-bolt *a*. At the rear end of the said draw-bars D D are firmly secured pendent standards or bars E E. At the lower ends of the said bars E E is secured the rake-head F, by means of iron straps *i i*, that pass around the said head in a groove, with each end extending up the standard a short distance, where they are secured to the said standards. The head F revolves in these straps, (only one of which is shown in the drawings.) *e e* may represent any number of teeth, which extend through the head and project to equal distances upon either side, so that their action is the same at all times. G is a board or bar that is secured to each of the draw-bars D D, on a line just in front of the rake-head, and near the rear end of the draw-bars D D. At the centre of this bar G is erected a post, H, that extends above and below the said bar G, the lower end extending down so as to nearly touch the head F, the upper end extending up a suitable distance, through which is a mortise, in which is pivoted at *c* a lever, I. At the rear end of this said lever I is pivoted a pendent lever, J, being pivoted by a bolt at *n* extends down to near the rear end of the rake-teeth *e e*. Upon the lower end of this pendent lever J is framed a short cross-piece, *u*, that extends parallel with the head, so as to pass over two teeth to prevent them from revolving when it is not desired they should. At the front side of the post H is pivoted to the lever I a curved standard bar, K. This bar K is pivoted to the lever I at *m*, and extends with a curve down through a loop, O, that is attached to the post H. Immediately under this loop O, and upon the bar K, is provided a shoulder, which prevents the said bar from passing farther up through the loop O. Upon the said bar K, between the shoulder and the board or bar G, is a spiral spring, *b*, that keeps the shoulder of the bar up to the loop O. Upon each side of the rake-head F, and immediately under the end of the bar K, are steps N N, for the purpose of revolving the rake. On the under side of the axle are secured two shafts P P, by which the machine or rake is drawn. The said shafts are supported by a wide cross-bar, Q, being bolted to the rear ends of the shafts near the axle-tree. R is the driver's seat secured to an inclined brace, S, that is secured to the cross-bar Q in such a position as to bring the end of the operating lever I convenient to the driver. T is a hook jointed to the cross-bar Q, that engages the eye U, located on the under side of the lever I, for the purpose of elevating the rakes so as to move from place to place without the teeth coming in contact with the ground. Y is an inclined brace that extends from the under side of the lever I down, and connects with the bar J, for the purpose of supporting and keeping in position the said bar J.

The operation of my improved rake is easy, and consists in attaching a horse to the machine in any convenient or well-known way, when the driver takes his position upon the seat R and proceeds across the field. When the teeth have become full the driver presses down the end of the lever I, which brings the curved bar K down upon the step N, which causes the front end of the teeth to engage the ground. At the same time the bar *u*, by means of the lever I, is thrown over or past the outer end of the teeth, and the teeth allowed to turn over or revolve, at the same time discharging the hay that has accumulated in their front. When the driver releases the lever I by the action of the spiral spring *b*, the bar K and lever I resume their former position.

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

1. We claim the lever I, and curved bar K, in combination with the rake-head F, and pendent lever J, for the purposes and substantially as shown and described.

2. We also claim the spiral spring *b*, in combination with the bar K and lever I, substantially as shown and described and for the purposes set forth.

S. A. KAYS,
L. M. KAYS.

Witnesses:

D. G. POWER,
S. S. ALLEN.