B. Webb.

Revolving Horse Rake.

No. 113121 Patented Mar. 28, 1871.

Fig. 1.

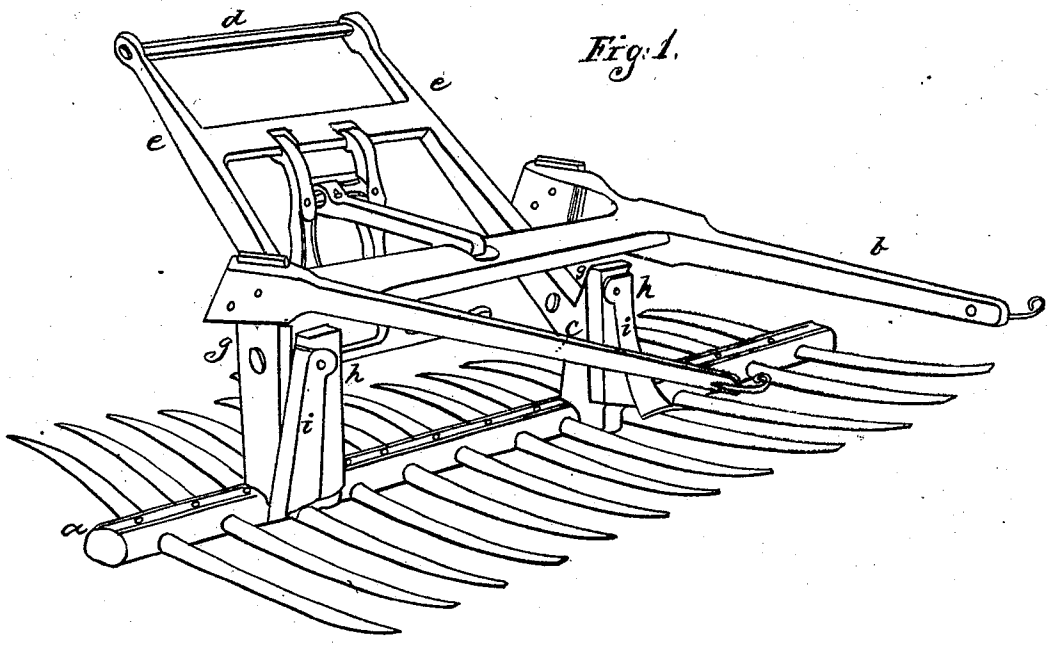
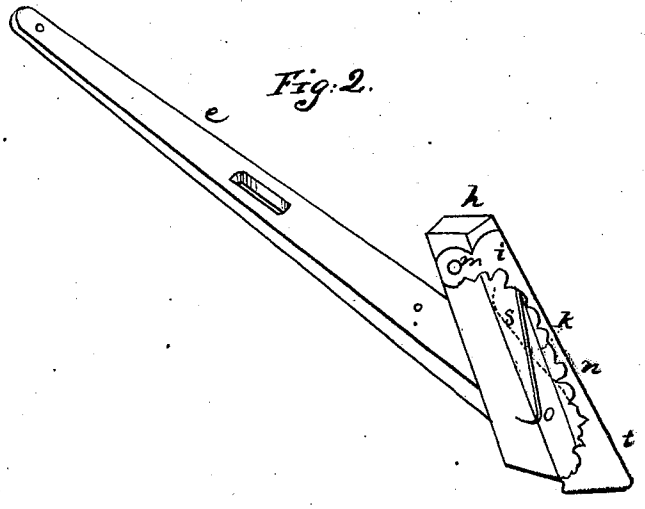


Fig. 2.



Witnesses:
William Baker
Edwin Hutchinson

Inventor:
Benjamin Webb

United States Patent Office.

BENJAMIN WEBB, OF UNADILLA FORKS, NEW YORK.

Letters Patent No. 113,121, dated March 28, 1871.

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 I, BENJAMIN WEBB, of Unadilla Forks, county of Otsego and State of New York, have invented a new and useful Improvement in Horse-Rakes; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawing making a part of this specification, in which—

Figure 1 is a perspective view of the whole machine ready for use, including the improvement.

a is the revolving rake-head;

b and *c* are the shafts, to which the horse is attached; and

d e e, the hand-frame, manipulated by the driver.

These main parts of the horse-rake are not new, but in common use.

In the common horse-rake, when the rake-head is allowed to turn over in discharging its load, the rake-tooth, passing next to the lower end of each of the side shafts *e* and *e* on the outside, crowds against the oblique edge of a rigid transverse block, constructed upon the lower ends of these shafts, springing back the shaft itself, and wrenching the connecting-joint. When the rake-head is passed the shaft springs back again and prevents the rake-head from turning backward.

This pressure against the ends of the shafts *e* operates injuriously upon the connection of the side shafts *e* with the upright posts *g*, and renders it difficult to sustain this connection.

My improvement consists in constructing a similar transverse block upon the lower ends of these side shafts, except that I make the outer side of the block straight, and not oblique, and place upon it a flat steel spring, lying lengthwise of the block, (or it may be a coiled spring,) and covering this spring with a metal shoe, hung by a working joint at the upper end, and lapping part way round the block.

This shoe lies upon the spring, acts upon it, and also protects it, and, when lifted by the spring, presents outward an inclined plane, so that, when the rake-head revolves, the adjacent rake-tooth before mentioned strikes and abrades the inclined plane of this metal shoe.

This yielding, by reason of the spring actuated by it, allows the head to pass without springing the side shaft at all or straining the connecting-joint; and, when the rake-head has passed, the shoe resumes its position by means of the spring, and the rake-tooth lying under the rigid end of this metal shoe is prevented from turning backward. Thus I am enabled to sustain a good connection of the side shaft with the upright post *g*, as the movement described does not injure this connection, but operates easily and advantageously.

e, Figure 2, represents one of these side shafts, and *h*, in both figures, represents the spring-block, with the metal shoe upon it.

In fig. 2 the shoe is broken away as seen in the drawing, in order to show the spring *k*.

This shoe works upon the thorough-bolt *m*, near the upper end.

The spring *k* is fastened by its lower end to the block, as shown, and, lying in the position shown in the figure, is actuated by the shoe when the latter is struck by the rake-tooth at *n*, as described.

The shoe, when pressed in by the rake-head, shuts over the block at the sides and works freely. This strap-spring, instead of being fastened to the block, as described, may be riveted to the plate of the shoe, near its lower end, as seen by the rivet-head at *t*, so that the spring, being attached to the shoe, is put upon the block with it. In this case the upper end of the spring is slightly curved outward, and, lying against the face of the block, is acted upon in the same manner and with the same effect as before described.

The position of the spring thus attached is shown in the figure by the dotted line S.

I am aware of the improvement in horse-rakes patented by John Wood, October 23, 1866, and the rejected cases of J. A. Taylor, filed August 9, 1848, and J. G. Burritt, September 6, 1858, wherein springs are used to be struck and pressed inward by the rake-teeth when the rake revolves, and which stop the return movement of the rake-head; but as no protection is provided for the springs, and the same being exposed to the direct violence of the movement, and to a very troublesome entanglement with the grass, much difficulty in the effective operation of the rake is thereby occasioned. I have met this evil by furnishing the shoe or covering for the springs which I have described. I do not claim the springs as heretofore used; but

What I claim, and desire to secure by Letters Patent, is—

The shoe or cover *i*, made as described, so as to entirely cover the spring, in combination with the block *h* and revolving rake, as set forth.

BENJAMIN WEBB.

Witnesses:

WILLIAM BAKER,

DEXTER GILLMORE.