

E. F. MORSE.
Horse Hay-Rakes.

No. 155,663.

Patented Oct. 6, 1874.

Fig. 1.

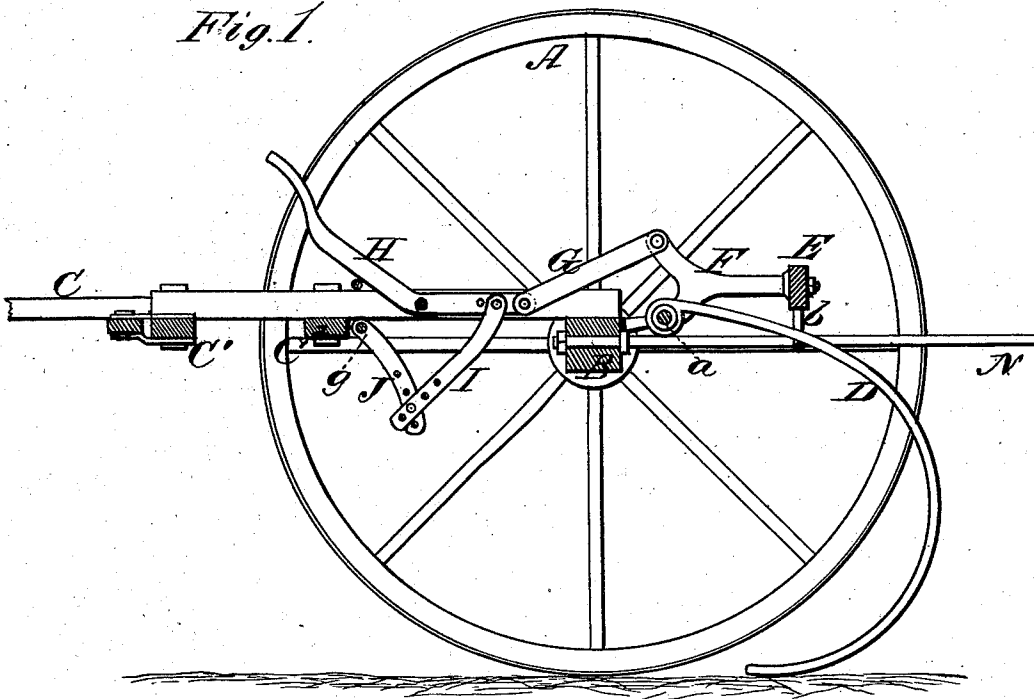
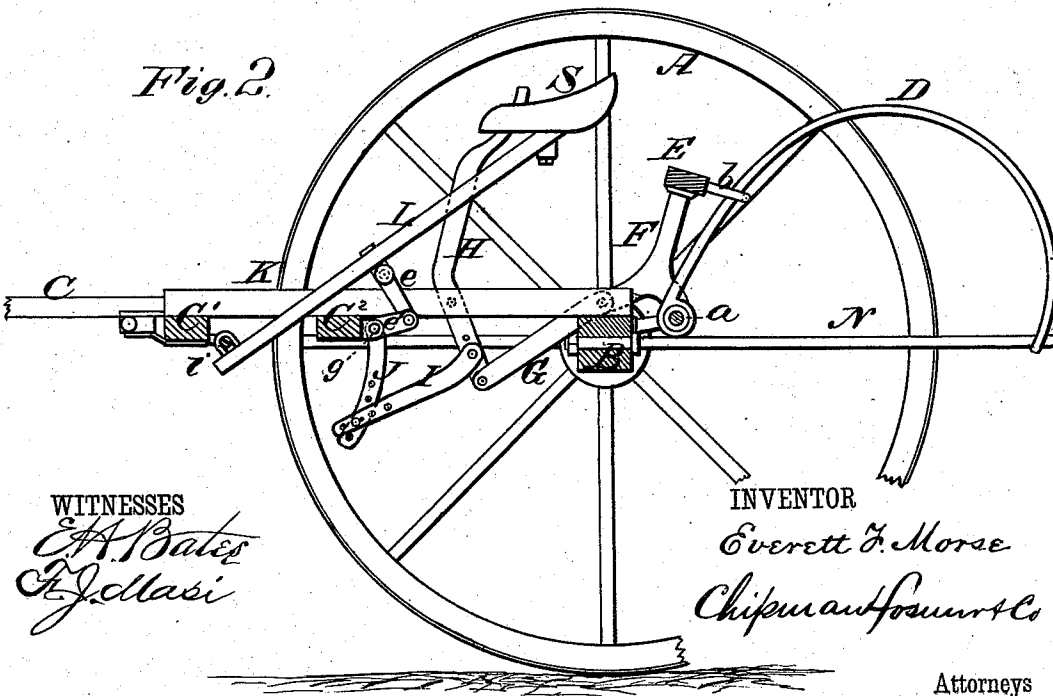


Fig. 2.



WITNESSES

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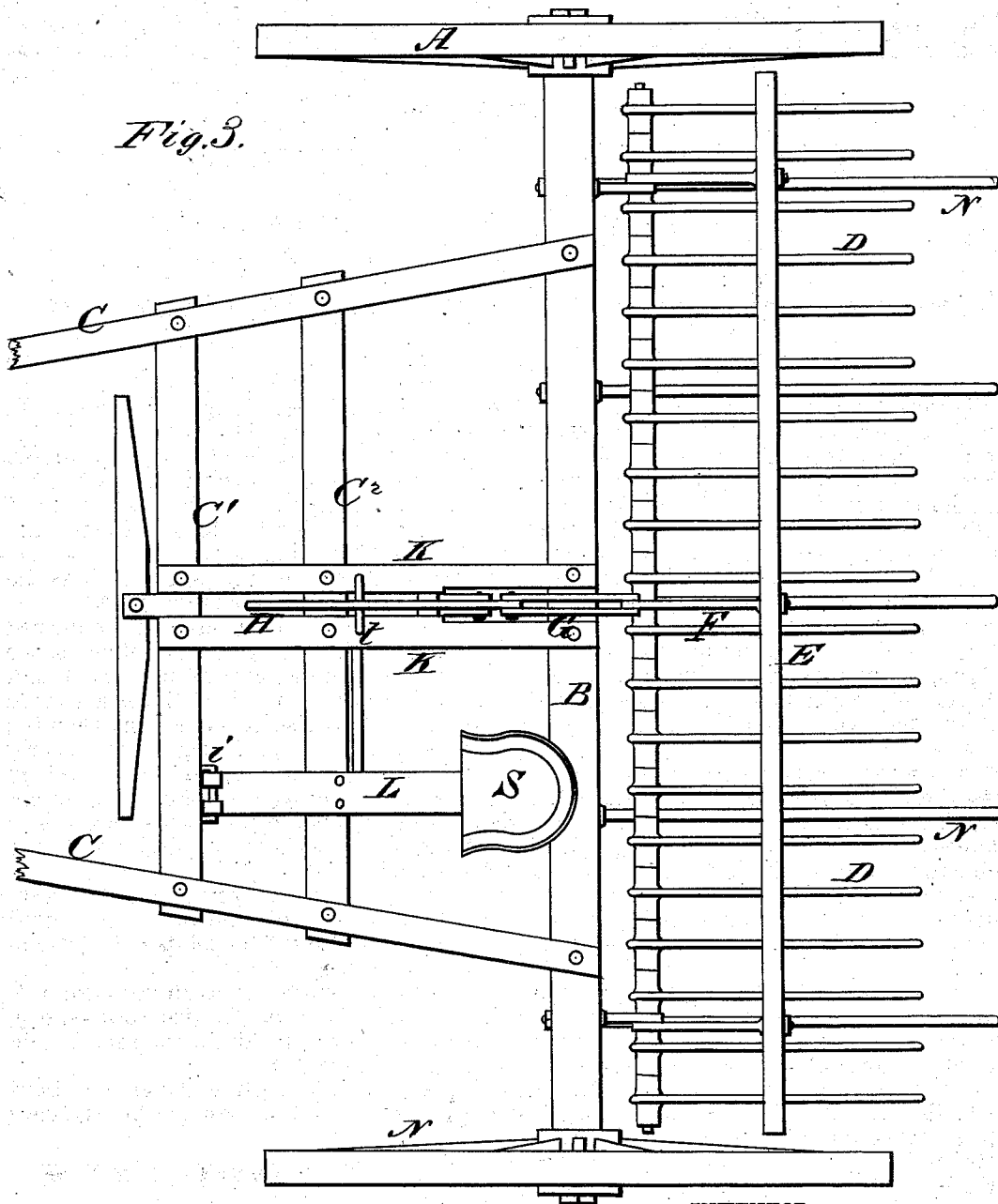
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UNITED STATES PATENT OFFICE.

EVERETT F. MORSE, OF ITHACA, NEW YORK.

IMPROVEMENT IN HORSE HAY-RAKES.

Specification forming part of Letters Patent No. **155,663**, dated October 6, 1874; application filed August 29, 1874.

To all whom it may concern:

Be it known that I, EVERETT F. MORSE, of Ithaca, in the county of Tompkins and State of New York, have invented a new and valuable Improvement in Sulky-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 drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figures 1 and 2 of the drawings are representations of longitudinal vertical sections of my horse hay-rake. Fig. 3 is a plan view of the same.

This invention has relation to sulky horse-rakes wherein the teeth are raised to discharge the gathered load; and it consists in a novel arrangement of levers and connecting-rods in combination with a hinged seat-support, whereby the weight of the seat and driver is utilized in raising the rake-teeth by being combined with the power exerted on a hand-lever, as will be hereinafter explained.

In the annexed drawings, H designates a hand-lever, which is pivoted between two bars, K K, the lower end of which lever is jointed to a link, G, connecting with arm F, attached to the rake-head so as to turn with it when the rake-teeth are raised or lowered. I represents a connecting-rod, one end of which is pivoted to lever H and the other end to arm J, which latter is rigidly secured to rock-shaft *g*, supported by bearings on bar C². The shaft *g* is connected through arm J and joints *e e'* to an inclined seat-support or lever, L, the

lower end of which is hinged at *i* to bar C¹, and on the upper end is the seat S.

The operation is such that when hand-lever H is raised by the person on the seat S, the rake-teeth are raised also, while the seat and the person are lowered. In this manner, the inclined seat-support L acts as a lever, and the weight of the seat and the person in it as the power, to assist in dumping the rake.

The power may be increased or diminished by changing the points of connection of the rod I with the hand-lever H and arm J, and for this purpose, two or more holes are made in each. It may also be stated that when the rake-teeth are down, the arm *e* being nearly in line with the arm *e'*, the power exerted by the weight on the seat is little and does not interfere with holding the rake-teeth down.

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

1. The lever seat-support L and the rock-shaft *g*, combined with the arm J, connected with the rake-head and the joints *e e'*, substantially as described.

2. The combination of a hinged seat-support, L, and hand-lever H, with rock-shaft *g*, arm J, joints *e e'*, and connecting-rod I, substantially as described.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

EVERETT F. MORSE.

Witnesses:

A. M. LUCAS,
BEN. MORSE.