J. HAUSE.
Horse Hay-Rake.

No. 209,564. Patented Nov. 5, 1878.

FIG. 1.

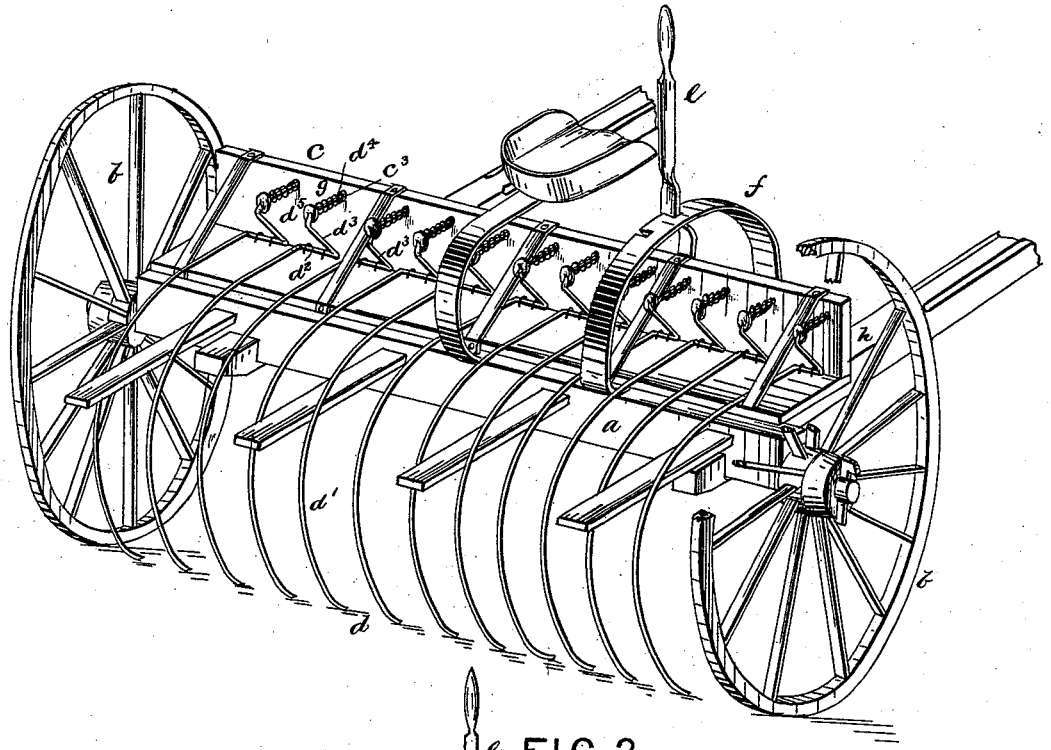
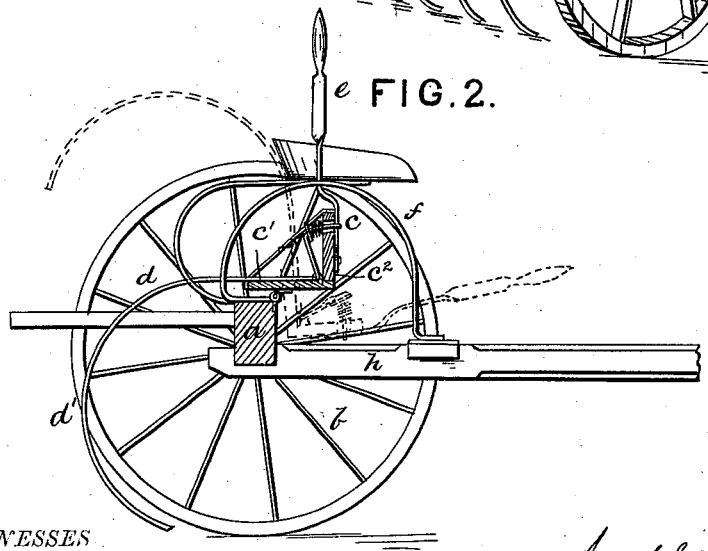


FIG. 2.



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JOSEPH HAUSE, OF OSTRANDER, OHIO.

IMPROVEMENT IN HORSE HAY-RAKES.

Specification forming part of Letters Patent No. **209,564**, dated November 5, 1878; application filed March 23, 1878.

To all whom it may concern:

Be it known that I, JOSEPH HAUSE, of Ostrander, in the county of Delaware and State of Ohio, have invented certain new and useful Improvements in Hay-Rakes; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention has for its object to furnish a hay-rake possessing superior advantages over rakes of ordinary construction; and consists in a hinged platform, on which are supported the teeth, which have their upper ends connected thereto by a pivoted or hinge joint, and operated as hereinafter fully set forth.

In the drawings, Figure 1 is a perspective view, and Fig. 2 is a vertical section, of a rake constructed according to my invention.

a is the axle, supported by the wheels *b*, as in ordinary rakes.

c is the platform, to which are secured the teeth *d*. It is composed of the base or horizontal board c^1 and the vertical or breast board c^2, secured together and forming the angular platform, as shown.

The rear side of the board c^1 is hinged to the axle *a*, while its opposite edge is extended forward of the said axle, and has secured thereto the vertical or breast board c^2, as shown. The platform *c* is so hinged that it may be turned down in front of the axle and bring the base-board c^1 into a vertical position, as shown in dotted lines, Fig. 2. This platform is made so that it will, when in the position shown in full lines, Figs. 1 and 2, be but slightly overbalanced by the weight of the teeth, and when in the position shown in dotted lines, Fig. 2, it will overbalance the teeth.

The objects of thus balancing the teeth is to prevent them from dropping heavily of their own weight to the ground, and so that when raised for the purpose of moving the rake they will not be injured by quick jars given by the wheels passing over obstructions, and so that their weight will not act to injure the hinges of the platform.

The platform is turned and locked in any position by the lever *e* and ratchet-bar *f*.

Each tooth *d* has its outer or rear end, d^1, curved in the ordinary manner, while its forward end has the axis portion d^2 turned to one side horizontally and at a right angle to the part d^1, and the lever part d^3 turned up to a vertical position and at a right angle to the part d^2, and slightly inclined to the rear, as shown, while the extreme forward or guide end d^4 is turned forward and to a horizontal position and passes through a hole, c^3, in the breast-board c^2. On the rear end of the part d^4 there is formed a suitable shoulder, d^5, adapted to support the rear end of the spring *g* coiled around the part d^4. The forward end of the spring *g* bears against the breast-board c^2.

The teeth *d* are secured to the platform with the axis d^2 resting in the angle between the base-board c^1 and breast-board c^2. They are secured by staples or other suitable device, so that they may have a hinge or turning movement in their fastenings, and they are held close down to the base-board c^1 by the action of the spring *g*.

There is great flexibility in the teeth attached in the manner hereinbefore described, and the liability of being sprung out of line is obviated. Their hinge-movement permits them to move readily to adapt themselves to unevenness in the surface of the ground. They may be raised from or lowered to the ground as desired.

When the rake is out of service and it is desired to move it from one place to another, it is elevated, as indicated in dotted lines, Fig. 2, with the breast-board c^2 resting on the draft-bars *h*, in which position the teeth will be supported without liability to be injured by jolts caused by the wheels passing over obstructions.

I am aware that rotating rake-heads with teeth secured thereto by a hinged attachment and held down by a spring have been heretofore in use, and I do not claim, broadly, such a construction; but,

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

The combination, with the rotating rake-

head c, composed of the boards c^1 and c^2, united so as to form the angular platform, and provided with holes c^4, as described, of the teeth d, having their upper or forward ends formed so as to provide the axis d^2, lever d^3, guide d^4, and shoulder d^5, and spring g, arranged to operate substantially as and for the purposes set forth.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

JOSEPH HAUSE.

Witnesses:
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