

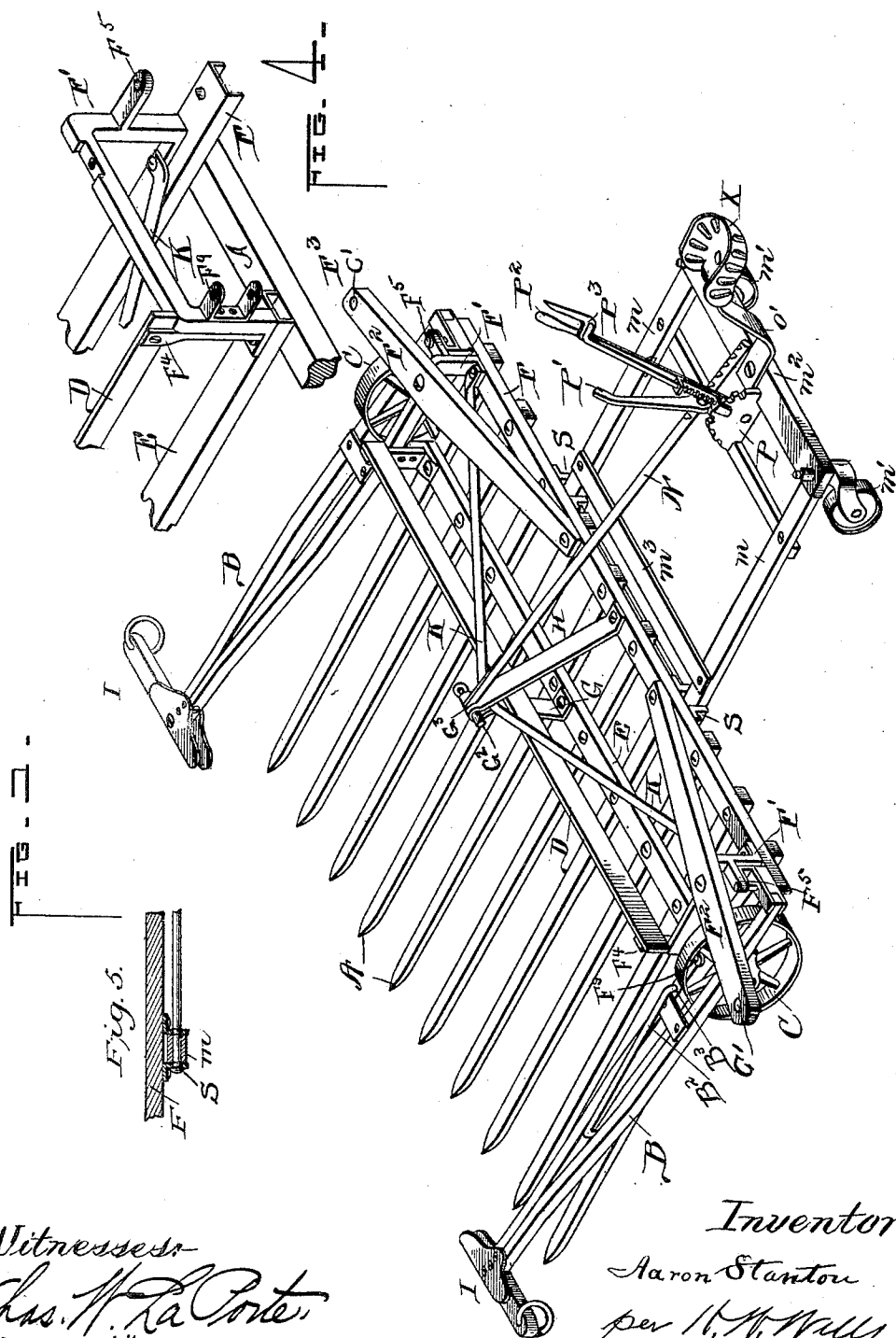
(No Model.)

2 Sheets—Sheet 1.

A. STANTON.
FOLDING HAY RAKE.

No. 581,786.

Patented May 4, 1897.



Witnesses:
Chas. H. LaPorte,
F. L. Schaub.

Inventor,
Aaron Stanton
per H. M. Wall

Atty

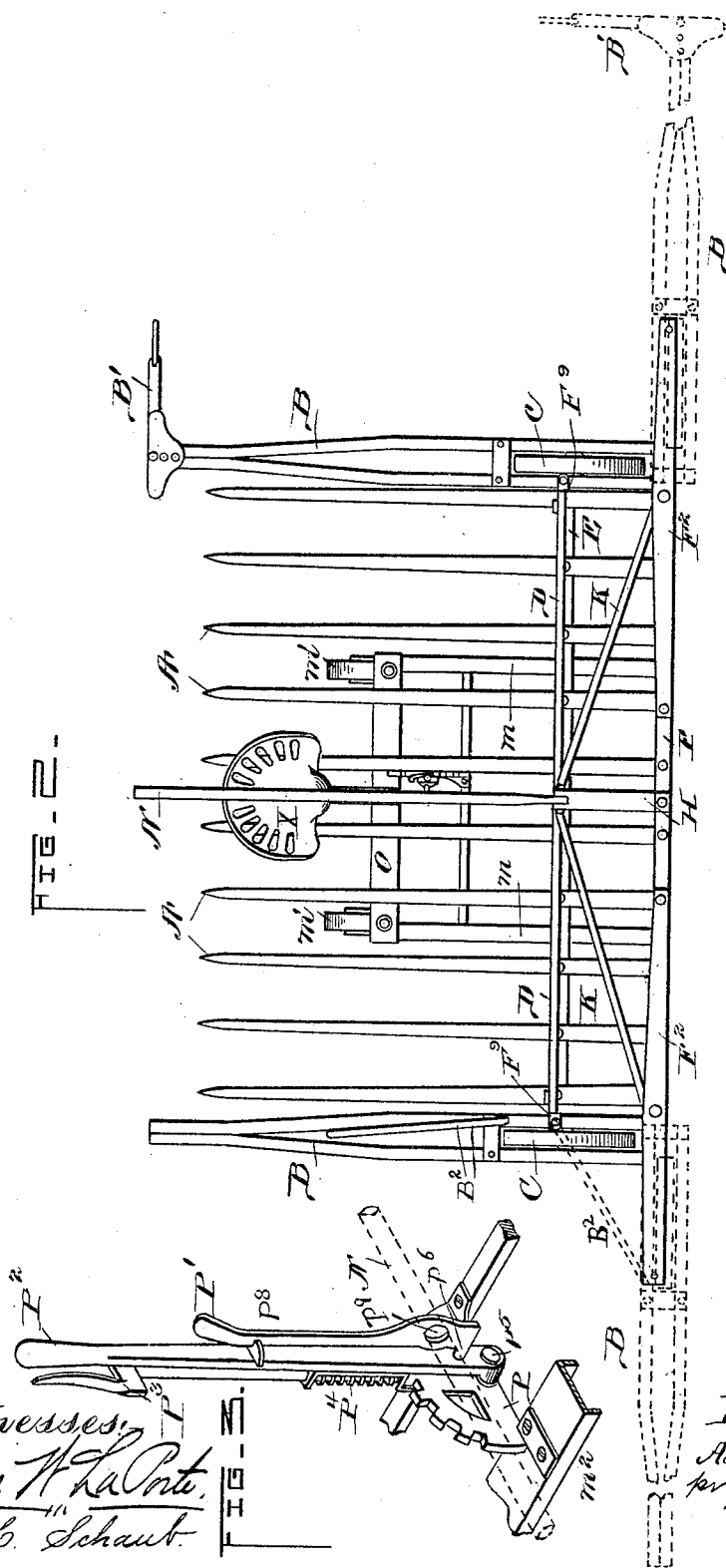
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UNITED STATES PATENT OFFICE.

AARON STANTON, OF VALPARAISO, INDIANA.

FOLDING HAY-RAKE.

SPECIFICATION forming part of Letters Patent No. 581,786, dated May 4, 1897.

Application filed June 29, 1895. Serial No. 554,404. (No model.)

To all whom it may concern:

Be it known that I, AARON STANTON, a citizen of the United States, residing at Valparaiso, in the county of Porter and State of Indiana, have invented certain new and useful Improvements in Folding Hay-Rakes; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

This invention is designed for an improved folding rake which can be cheaply manufactured and profitably used in the field and can at the same time be folded, so that it will easily pass along an ordinary country road or through an ordinary gateway.

I accompany this specification with drawings of my invention, in which like parts of the machine are indicated by like letters of reference in all the figures of the drawings. By their aid I will describe it.

Figure 1 is a perspective view of my machine ready for work in the field. Fig. 2 is a perspective view of my machine, showing in full lines the seat-frame folded under the rake and by dotted lines showing the leading poles folded, so that the machine may be moved along an ordinary road or through an ordinary gateway. Fig. 3 is a view of the ratchet-lever and grip-lever of my machine with the mounting of the same. Fig. 4 is a perspective view of one of the side frames used in the construction of my machine, one of these being constructed and attached on each side of my machine. Fig. 5 is a detail view showing the hinge connection between the rake-head and the seat-frame.

A indicates the teeth of my rake in an operative machine. These may be of any convenient length and set at any convenient distance apart for raking hay. The transverse bars E F extend across the machine. Practically they may be twenty to twenty-four inches apart, more or less, and twelve to eighteen feet long. The teeth are rigidly attached to the under side of each of these transverse bars by any convenient means. The transverse bars E F are strengthened and supported by the bar D.

The bar D extends across the machine. It is rigidly attached at each extremity to the side frame, hereinafter described, or to a pro-

jection therefrom, and is supported by the hog-chain K K and the brace H G. The hog-chain K K is a metal rod. It is attached at one extremity to the transverse bar F. Thence it rises and at the same time inclines forward to engage with the brace H G. Thence it descends and inclines to the rear and is rigidly attached to the other extremity of the same bar F. The brace H G is of metal. It is rigidly attached near the center of the bar F. Thence it rises and at the same time inclines forward above the bar D. There it is bent to form a loop, as shown. Thence it descends perpendicularly to the bar E, to which it is rigidly attached. The loop in the brace H G is fitted to receive a pin G². It is also slotted transversely to receive the brace-rod N, which is also pierced to receive the pin G², which holds it pivotally in engagement therewith. Its office will be hereinafter described.

The side frame of my machine is shown in Fig. 4. It is preferably a rectangular metal casting, the bottom one of the long sides being omitted, each of the short sides, which are perpendicular sides, being provided with jaws F⁵ and F⁶, projecting outward, for the purpose of attaching and holding the tongue, also hereinafter described. The lower jaw of the pair F⁵ may be omitted, and the extension of the bar F may be used as such, as shown in the drawings. Each of these jaws is pierced to receive a pin, as shown, this pin to hold the tongue as hereinafter described.

The draft attachment includes two leading poles or tongues B, one hinged on each side of the machine, each having a swinging neck-yoke I upon it. Within the cleft of each tongue is mounted a wheel C. These wheels are to carry the machine. The rear of each half-tongue is pierced to receive the pin passing through F⁵ and through the tongue simultaneously and forward thereof, as shown. It is pierced to receive the pin passing through the jaw F⁶ and through the tongue simultaneously, thus holding it pivotally attached at F⁵, while at the forward extremity of the frame the tongue swings between the jaw F⁶, and is there held detachable in position by the pin, as described, while the machine is working in the field. It may be detached, as hereinafter described, in order to move the machine along an ordinary road.

The bar F^2 is a bar rigidly attached at its lower extremity near the center of bar F , as shown in the drawings, rising and extending outward, as shown. As it rises its middle part extends over and is attached to the side frame. Thence it rises and projects as shown. In a full-sized machine the projection may be approximately two feet at its outer extremity. A singletree may be attached.

m, m, m^2 , and m^3 is a frame rectangular in form. Its rear is carried upon caster-wheels $m' m'$. Its forward end is detachably hinged at S to the under side of the transverse bar F . Upon the rear of this frame is mounted the driver's seat, and forward within easy reach thereof is the ratchet-lever P^2 and ratchet P , as shown. Mounted pivotally upon this ratchet-lever, near and above its attachment P^5 , is a grip-lever P' and its latch P^8 . This grip-lever is pierced near its lower extremity at P^9 to admit the brace-rod N , before mentioned, to pass through. This grip-lever is of such thickness that the rod N will move freely through it so long as the lever remains latched at substantially right angles to the rod; but when the lever is released from its catch P^8 and is thrown to the rear or forward the grip will engage and rigidly hold the rod N by friction of the parts.

To elevate the forward end of the teeth, the lever P' is detached from the catch P^8 and thrown forward. The ratchet-lever P^2 is then drawn to the rear, and the lever N is held in the grip-lever, and the forward extremity of the teeth is thereby elevated. They may be depressed by reversing the operation.

I will now describe the manner of folding my rake for passage along an ordinary road or through an ordinary gateway. To place it in this condition, the pin is withdrawn from each forward jaw F^9 in each tongue. This allows the tongue to swing outward until on a line in prolongation with the line of the transverse bar F . The rear or left tongue (during the time the machine is on the road) must be held in this position. This is accomplished by means of the brace B^2 . This brace is pivotally attached at its rear extremity to the tongue. Its forward extremity rests upon the tongue. It is furnished with a hook which engages a loop on the left extremity of the bar D . The frame m, m, m^2 , and m^3 is then disengaged from the bar F and is swung around and placed under the teeth of the rake, as shown in Fig. 2, where it is again at-

tached by means of the hinges S under the bar F . The half neck-yoke on the right-hand tongue is swung around to the opposite side of the tongue, and the singletree is disengaged and attached to the jaw F^9 , when the machine is ready for passage through any ordinary gate.

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

1. In a folding hay-rake, the rake-head, the swinging half-tongues each mounted upon a wheel, each pivotally hinged to the head; the rear frame detachably hinged to the rake-head, the ratchet and ratchet-lever having a grip-lever and catch mounted thereon the grip and rod N to raise or depress the teeth.

2. In a folding rake the teeth, the half-tongues separately mounted upon a wheel and pivotally attached on each side of the rake, each tongue being detachably held by a pin through the jaw F^9 each adapted to swing outward and to stand upon a line at right angles to the teeth in combination with the brace B^2 to hold one of said half-tongues while the other is free, to move upon its pivotal attachment.

3. In a folding rake the transverse bars, the teeth, the half-tongues each mounted upon a wheel, each pivotally attached upon each side of the machine, each detachably held by the jaws F^9 each arranged when released to swing outward and to stand upon a line at right angles to its first position, in combination with the frame m, m, m^2, m^3 arranged to be detached, and to be reattached under the teeth of the rake for passing along an ordinary country roadway.

4. In a folding hay-rake the rake-head the rear frame detachably hinged to the rake-head and mounted on casters, carrying a ratchet-lever, the rod N its forward extremity attached to the rake-head, the grip-lever and latch said grip being pierced to receive the rod N and permit the same to move freely therein when the grip-lever is latched and to engage and rigidly hold the rod when the lever is released from the latch.

In testimony whereof I affix my signature in presence of two witnesses.

AARON STANTON.

Witnesses:

M. W. SWARTZ,
FRANK COBB.