No. 836,138. PATENTED NOV. 20, 1906.

C. PEARSON.

HAY RAKE.

APPLICATION FILED FEB. 17, 1906.

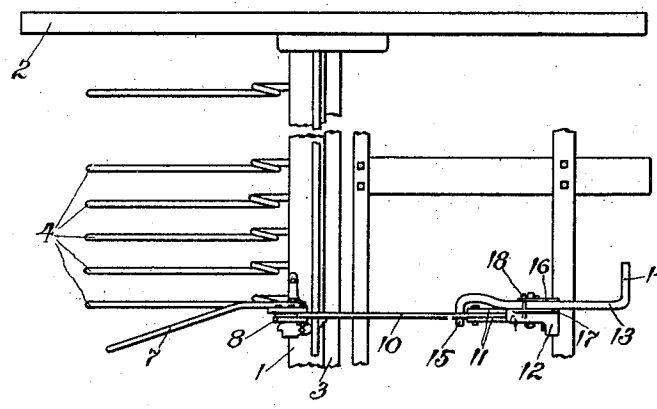

Fig. 1.

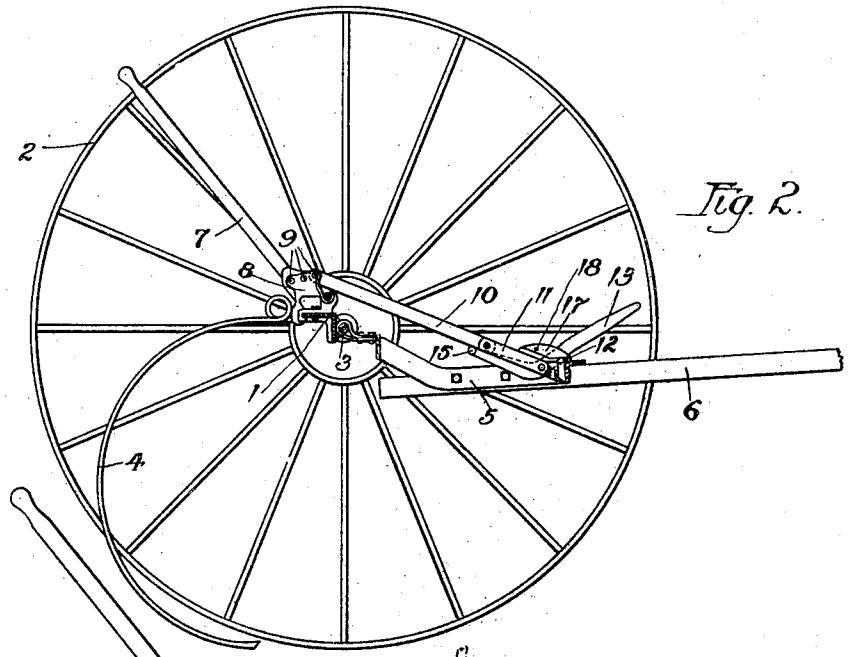

Fig. 2.

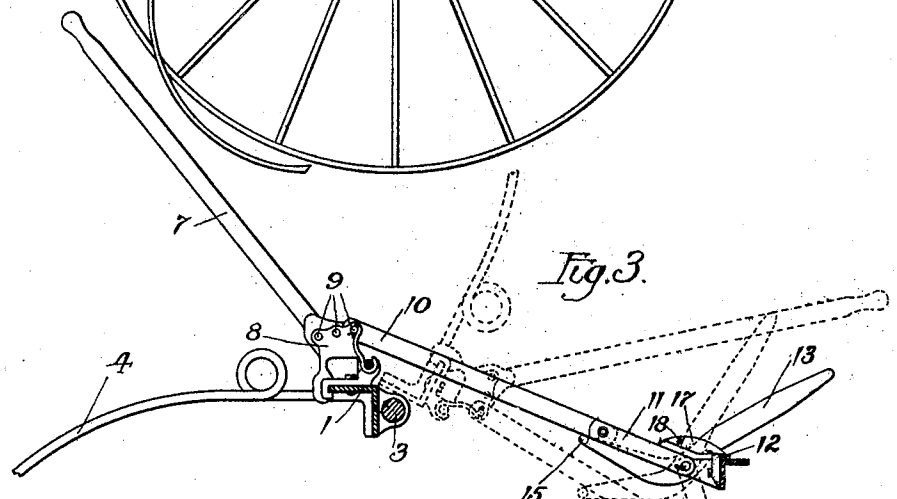

Fig. 3.

Witnesses:
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UNITED STATES PATENT OFFICE.

CHARLES PEARSON, OF CHICAGO, ILLINOIS, ASSIGNOR TO INTERNATIONAL HARVESTER COMPANY, A CORPORATION OF NEW JERSEY.

HAY-RAKE.

No. 836,138. Specification of Letters Patent. Patented Nov. 20, 1906.

Application filed February 17, 1906. Serial No. 301,593.

To all whom it may concern:

Be it known that I, CHARLES PEARSON, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Hay-Rakes, of which the following is a specification, reference being had to the accompanying drawings, forming a part thereof.

My invention relates to hay-rakes, and particularly to means for holding the rake-teeth in operative or inoperative position, its object being to provide a mechanism that will perform the above function in an effective manner and one composed of few parts that are simple and strong in construction, these objects being attained by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a top plan view of a part of a hay-rake embodying my invention. Fig. 2 is an end view of Fig. 1, and Fig. 3 is a detached sectional elevation showing the different positions of the operative parts as the rake is manipulated.

The same reference-numerals designate the same parts throughout the several views.

Referring to the drawings, 1 designates the rake-head; 2, one of the carrying-wheels journaled upon an axle 3, secured to the head; and 4 represents the rake-teeth connected with the rake-head by any preferred means.

5 is a draft-frame having its rear end pivotally connected with the rake-head, and 6 represents one of the thills secured to the draft-frame.

7 is a hand-lever secured to the head by means of a bracket 8, the bracket having a series of openings 9 therein by means of which the rear end of a toggle-bar 10 is connected therewith, the opposite end of the bar being pivotally connected with the rear ends of the toggle-bars 11, said toggle-bars having their opposite ends pivotally connected with the draft-frame by means of the bracket 12, the whole forming a common form of toggle connection designed to control the rocking movement of the rake-head in a well-known way.

Pivotally mounted upon the bracket 12, coaxially with the bars 11, is a foot-lever 13, having a laterally-extending arm portion 14 at its upper end adapted to receive the operator's foot and a laterally-extending arm portion 15 at its lower end adapted to contact with the lower edge of the toggle-bar 10.

When the teeth are in operative position, as shown in Fig. 2, the axes, pivotal connections, of the toggle-bar mechanism are in approximately the same plane, and a slight pressure forward upon the foot-lever will be sufficient to retain them in that position.

The bracket 12 is provided with vertically-disposed webs 16 and 17, between which the lever 13 is pivotally mounted, and the toggle-bars 11 are connected to one of the webs, and extending laterally from opposite sides of the web 17 are overhanging lip portions with which the toggle-bars 11 are adapted to contact in a manner to limit their upward swing for the purpose of preventing an improper alinement of the toggle connections, and 18 is a pin passing through the webs and adapted to limit the movement of the foot-lever in one direction.

Any preferred mechanism may be used to dump the load, and it may be either hand or draft operated.

When the load is dumped, the toggle-bars swing downward, as shown by dotted lines in Fig. 3, and the foot-lever controlled thereby moves rearward at its upper end, the bars 10 and 11 being so proportioned as to their length to cause the bar 11 to swing beyond a right angle with the bar 10 and form an acute angle therewith and lift its forward end, in which position it may be retained by a forward pressure upon the foot-lever. If the pressure be released, the gravity of the teeth will rock the rake-head rearward and cause the toggle-bars to move about their pivotal connections toward the position shown by full lines, and during the latter part of such movement forward pressure upon the foot-lever will operate to assist such movement, the foot-lever being operative to hold the rake in either operative or inoperative position.

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

1. In a hay-rake, the combination of a rocking rake-head, a draft-frame pivotally connected therewith, a toggle mechanism having its opposite ends pivotally connected with said draft-frame and said rake-head and operative to lock said rake-head either in operative or inoperative position, and a foot-lever pivotally mounted upon said draft-

frame and engaging directly with said toggle mechanism in a manner to lock said head in either position.

2. In a hay-rake, the combination of a rocking rake-head, a draft-frame pivotally connected therewith, a toggle connection between said head and said draft-frame comprising bars having one end of each pivotally connected intermediate said frame and head and having the opposite end of one bar pivotally connected with said head, and the opposite end of the other bar pivotally connected with said frame, the axes of said pivotal connections being in approximately the same plane when said head is in operative position, and the axis of the intermediate pivotal connection being below the plane of the others, causing said bars to form an acute angle with each other when said head is in an inoperative position, and a foot-lever pivotally mounted upon the draft-frame and engaging directly with said toggle connection and operative, when pressed in one direction, to lock said toggle connection in either position.

3. In a hay-rake, the combination of a rocking rake-head, a draft-frame, a bracket secured to said head, a bracket secured to said frame, a bar having its rear end pivotally connected with the bracket secured to said head two bars having their rear ends pivotally connected with the forward end of said bar and having their forward ends pivotally connected with the bracket secured to said frame, a foot-lever pivotally mounted upon said frame-bracket, having one end adapted to receive the operator's foot and its opposite end engaging directly with the lower edge of said first-named bar.

4. In a hay-rake, the combination of a rocking rake-head, a draft-frame, a bracket secured to said head, a bracket secured to said frame, a bar having its rear end pivotally connected with the bracket secured to said head two bars having their rear ends pivotally connected with the forward end of said bar and having their forward ends pivotally connected with the bracket secured to said frame, a foot-lever pivotally mounted coaxially with said bars upon said frame-bracket, having one end adapted to receive the operator's foot and its opposite end engaging directly with the lower edge of said first-named bar, and means forming part of said frame-bracket for limiting the swing of said second-named bars in one direction.

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

CHARLES PEARSON.

Witnesses:
WM. N. SCHNEIDER,
A. L. KLINE.