

L. R. SHAFTO.
HAY STACKER AND LOADER.
APPLICATION FILED NOV. 27, 1909.

972,478.

Patented Oct. 11, 1910.

3 SHEETS—SHEET 1.

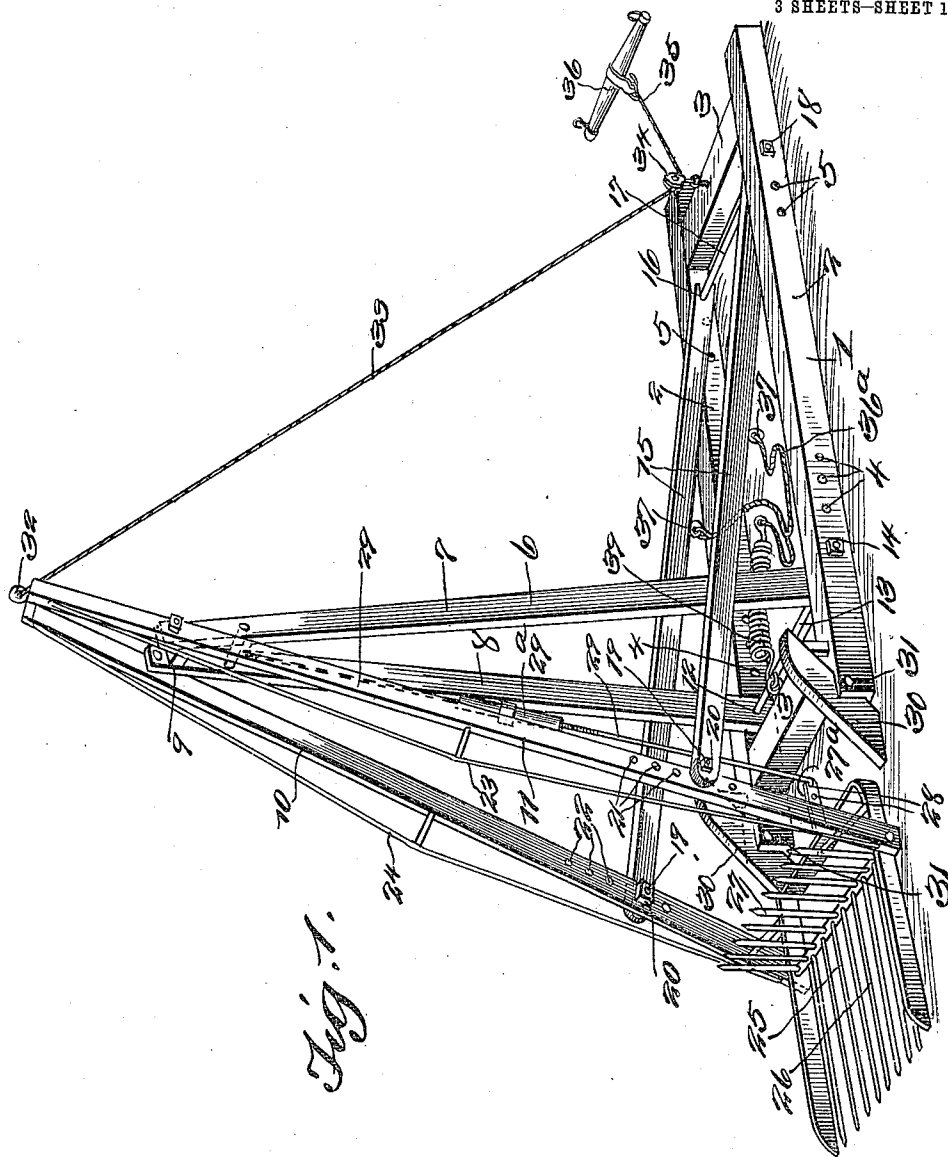


Fig. 1.

Witnesses

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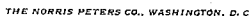
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3 SHEETS--SHEET 2.

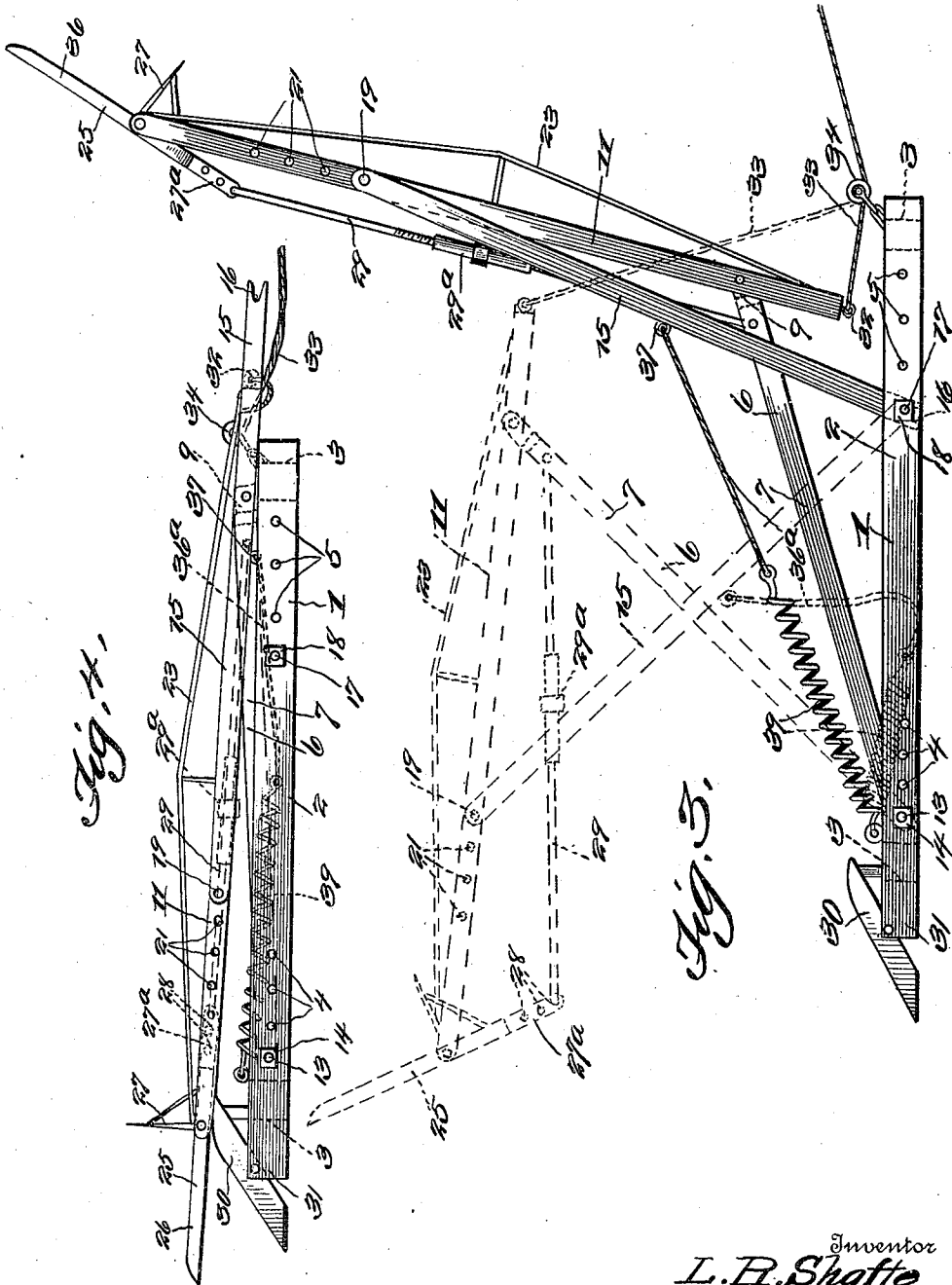


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UNITED STATES PATENT OFFICE.

LEROY R. SHAFTO, OF ELM CREEK, NEBRASKA.

HAY STACKER AND LOADER.

972,478.

Specification of Letters Patent.

Patented Oct. 11, 1910.

Application filed November 27, 1909. Serial No. 530,196.

To all whom it may concern:

Be it known that I, LEROY R. SHAFTO, a citizen of the United States, residing at Elm Creek, in the county of Buffalo and State of Nebraska, have invented a new and useful Hay Stacker and Loader; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention pertains to a new and useful hay stacker or loader and the object of the invention is the provision of a fork, which when being raised increases in speed, or in other words the fork is variable in its movements, while the pull thereon is constant.

A further object of the invention is the production of a plurality of cooperating movable beams, and a base portion, and which are adjustable with regard to one another, in order to regulate the throw of the fork, when the same is being raised.

A further object of the invention is the provision of means for adjusting the inclination of the fork with regard to one of the beams.

Another object of the invention is to provide inclined members carried by one end of the base, with which the fork may contact, in order to allow the fork to escape the ends of the base.

In this specification and the drawings accompanying the same, a certain design of device is complied with, but the invention is not to be confined to this special form. The device in its actual reduction to practice may require changes and variations; the right thereto belongs to the applicant provided such changes and variations are comprehended by the accompanying claims.

Further objects and combination of various parts will be hereinafter more clearly set forth and pointed out in the appended claims.

In the drawings:—Figure 1 is a perspective view of the hay stacker or loader, showing the fork in its lowermost position. Fig. 2 is a perspective view of the stacker, showing the fork at its raised or its uppermost position. Fig. 3 is a side elevation of the stacker, showing the plurality of cooperating beams adjusted in different positions, showing the fork at a different height than

that shown in Fig. 2, and further disclosing the fork in dotted lines at a position between the lowermost and uppermost positions. Fig. 4 is a view showing the hay stacker or loader folded. Figs. 5 and 6 are detailed sectional views in order to further show the detailed structure of the stacker.

In regard to the annexed illustrations, 1 designates a base, composed of two longitudinal parallel beams 2, which are braced by transverse beams 3, at each end thereof. Adjacent each end of the beams 2, they are provided with apertures 4 and 5.

6 denotes a frame composed of two beams 7 and 8, which are arranged so that the upper ends converge to an apex or point, designated by the numeral 9, and which is pivoted between two beams 10 and 11. The lower ends of the beams 7 and 8 are provided with apertures 12, through which apertures 4 of the base bolts or elongated rods 13, penetrate. Upon the threaded ends of the rods or bolts 13 nuts 14 are secured, in order to hold the bolts in place. By means of the plurality of apertures 4 and the bolts 13 and nuts 14 the beams 7 and 8 may be adjusted with regard to the base.

15 denotes two parallel arranged beams, their lower ends provided with apertures 16 through which and the apertures 5 a bolt 17 extends, and upon its threaded end a nut 18 is applied. It is clearly evident that by removing the bolt 17 and adjusting the beams 15 with regard to the other apertures 5, after reinserting the bolt, the beams 15 are adjusted. The beams 15 and the beams 10 and 11 are made adjustable with regard to one another by means of a bolt and nuts 19 and 20, which cooperate with the apertures 21 and 22 of said beams. The beams 10 and 11 are braced by the rods 23 and 24, which are disposed angularly with relation to the said beams.

Pivoted to the lower ends of the beams 10 and 11 is the fork 25, which is composed of forks 26 and 27, extended at right angles to one another. The fork is provided with a rearwardly extending arm 27^a. This arm 27^a is provided with apertures 28 in any one of which the rod 29 may be adjusted. This rod 29 is pivoted between the beams 7 and 8, slightly below the pivot of said beams and the beams 10 and 11. It will be understood that by adjusting the rod 29 in any one of the apertures of said arm, the fork will be

disposed at various angles as it is raised, because of the connection between the rod 29 and the beams 7 and 8. That is, if the rod 29 is engaging the aperture nearest the rear portion of the fork, the fork will be disposed at a different angle as it raises, when the beams 7 and 8 are being tilted rearwardly, than if the rod 29 was inserted in an aperture farther away from the rear portion of the fork. One end of the base is provided with inclined members 30 with which the rear portion of the fork engages in order to prevent the fork from striking the end 31 of the base.

Attached to an eye 32 (which is carried by the upper end of the beams 10 and 11) is a rope or cable 33. This rope or cable passes under a pulley 34, which is carried by one of the transverse beams 3. Attached to the end 35 of the rope or cable is a swingletree 36, to which a horse (by means of traces not shown) may be connected, in order to impart movement to the beams 7, 8, 10, 11 and 15. By imparting a pulling action upon the cable or rope, the beams 15 are tilted upwardly upon their pivots, while the beams 7 and 8 are tilted downwardly, in the positions shown in Fig. 2. By tilting the beams 7 and 8 and 15 in this manner, the beams 10 and 11 are so operated as to absolutely reverse their positions, as clearly disclosed in Fig. 2. By reversing the position of the beams 10 and 11, the fork is raised. When the beams 15 rise to the end of their movements they are disposed approximately in a vertical position, in which position they are limited by means of the cable 36. This cable 36 is connected to the beams 15 as shown at 37, while the end 38 thereof is secured to a coil spring 39, which in turn is fastened to one of the transverse beams 3. As the beams 15 are limited in their movements, they are slightly vibrated through the action of the spring 39.

Having thus fully set forth the invention, what is claimed as new and useful is:—

1. In a hay stacker or loader, a base, having at one end forward pivoted beams, while at the other rearward pivoted beams, a fork-carrying frame pivoted to the ends of the forward and rearward beams, means whereby a pulling action may be exerted upon the fork-carrying frame in order to impart a variable movement to the fork, means arranged between the fork and the forward beam whereby the angle of the fork may be changed when being raised, means to prevent the rear portion of the fork from striking the base as it is raised, and means to

limit the upwardly tilting action of the angularly arranged beams.

2. In a hay stacker, a base, beams pivoted to the rear end of the base, beams pivoted to the front end of the base, a fork carrying frame pivoted to the ends of the beams, the front beams being connected with the rear of the frame and the rear beams being connected with the front of the frame, a fork pivoted on the frame, a rod pivoted to the fork and the upper end of the front beams, and means for raising the fork with the frame.

3. In a hay stacker, a base, beams pivoted to the rear end of the base, beams pivoted to the front end of the base, a fork carrying frame pivoted at its rear to the upper ends of the second beams and at its forward end to the upper ends of the first beams, a fork pivoted on the front end of the frame, means for elevating the fork with the frame, and a spring connecting the base to the rearwardly pivoted beams.

4. In a hay stacker, a base, pivoted members on the forward end of the base, beams pivoted to the rear end of the base, beams pivoted to the forward end of the base, a fork carrying frame pivoted at its rear end to the upper ends of the forwardly pivoted beams and at its forward end to the upper ends of the rearwardly pivoted beams, a fork pivoted on the frame, an arm connected with the fork, a rod connecting the fork and the forwardly pivoted beams, and a rope connected to the fork carrying frame.

5. In a hay stacker, a base, a pair of beams pivoted to the rear end of the base, a pair of beams pivoted to the forward end of the base, means for adjusting the connection between the beams and the base, a fork carrying frame pivoted at its rear end to the upper ends of the forwardly pivoted beams and at its forward end to the rearwardly pivoted beams, means for adjusting the connection between the rearwardly pivoted beams and the frame, a fork pivoted on the frame, a rod connecting the fork with the forwardly pivoted beams, a spring connecting the rearwardly pivoted beams and the base, pivoted members on the forward end of the base, and a rope connected to the frame and the base.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

LEROY R. SHAFTO.

Witnesses:

J. M. NORTHRUP,
WILL SONVILLE.