

No. 760,064.

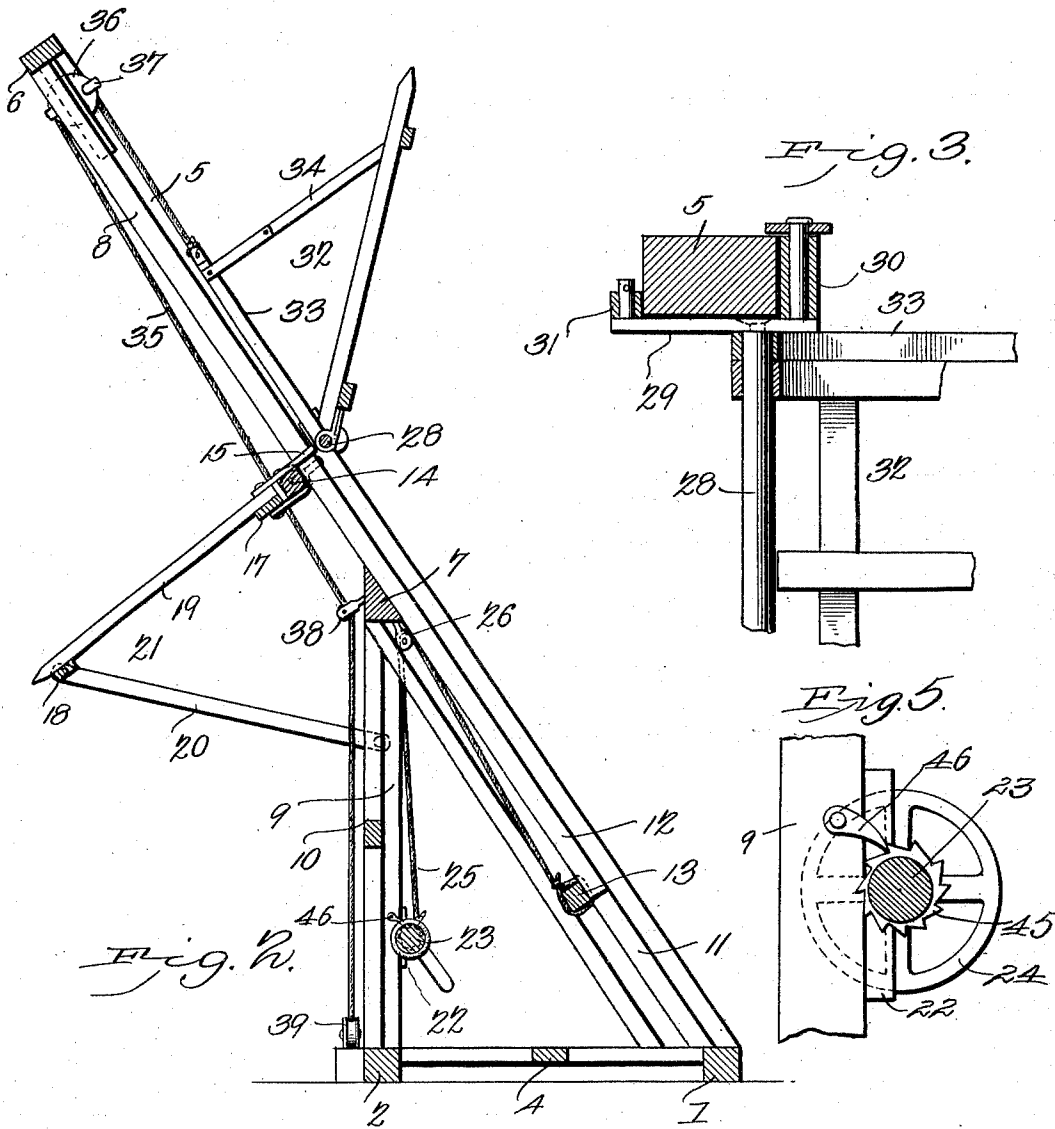
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W. FAGAN.
HAY STACKER.

APPLICATION FILED JUNE 22, 1903.

NO MODEL.

2 SHEETS—SHEET 2.



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UNITED STATES PATENT OFFICE.

WILLIAM FAGAN, OF ABBOTT, NEBRASKA.

HAY-STACKER.

SPECIFICATION forming part of Letters Patent No. 760,064, dated May 17, 1904.

Application filed June 22, 1903. Serial No. 162,676. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM FAGAN, a citizen of the United States, residing at Abbott, in the county of Hall and State of Nebraska, have invented a new and useful Hay-Stacker, of which the following is a specification.

This invention relates to hay-stackers of that class in which an inclined track of suitable construction is combined with a carrier upon which the load is deposited while said carrier is in a lowered position, the same being combined with means for elevating the carrier along the track and for tilting said carrier when the point of delivery is reached.

My invention has for its object to provide a device of this class which shall possess superior advantages in point of simplicity, durability, and general efficiency; and with these ends in view the invention consists in the improved construction, arrangement, and combination of parts, which will be hereinafter fully described, and particularly pointed out in the claims.

In the drawings, Figure 1 is a perspective view of one form of embodiment of my invention. Fig. 2 is a vertical sectional view showing the device in a different position. Fig. 3 is a sectional detail view, on an enlarged scale, of one of the track-beams 5 and a portion of the carrier. Fig. 4 is a sectional detail view taken on the line 4 4 in Fig. 1. Fig. 5 is a detail sectional view, on an enlarged scale, taken through the shaft or drum 23 and showing the ratchet-wheel 45, pawl 46, and hand-wheel 24.

Corresponding parts in the several figures are indicated by similar numerals of reference.

The base of my improved hay-stacker is composed of front and rear sills 1 and 2 and the side sills 3 3, which are connected by means of diagonal braces 4. Rising from the front sill 1 are the inclined parallel track-beams 5 5, which are connected at their upper ends by a cap-beam 6 and at an intermediate point by a cross-piece 7, which latter is V-shaped in cross-section. Side bars 8 8, disposed adjacent to the inner sides and spaced from the track-beams 5, extend from the front sill 1 to the cap-beam 6. The track-frame is supported by means of braces 9, rising from the rear sill 2, said braces

being connected with the ends of the cross-beam 7, and diagonal braces 10 are employed to strengthen and reinforce the parts.

A plurality of bars 11 connect the front sill 1 with the cross-piece 7, said bars being suitably spaced apart and secured in a position parallel to each other. Adjacent to these bars are placed a plurality of grate-bars 12, the lower ends of which are connected by a cross-piece 13, lying beneath the bars 11, while their upper ends are similarly connected by a cross-piece 14, which is secured to the under sides of the grate-bars 12. The cross-piece 14 is provided at the ends thereof with hooked-shaped extensions 15, which ride the side bars 8. Suitably hinged to the cross-piece 14 by means of hinge-straps 16 is a frame comprising parallel bars 17 and 18, connected by a plurality of prongs or tines 19. The ends of the lower or outer cross-bar 18 are connected, by means of links 20, with the inner sides of the uprights 9, said links forming braces by means of which the hinged frame, which as an entirety is designated 21, may be sustained in the various positions which it is capable of assuming.

The uprights 9 are provided with boxes 22, in which is journaled a shaft or drum 23, having at one end a hand-wheel 24, by means of which it may be conveniently manipulated. Suitably attached to said shaft or drum are flexible connections, such as ropes 25, which after passing over guide-pulleys 26, suspended from the cross-piece 7, are made fast to the ends of the bars 12 of what I prefer to designate the "grate-frame." It will be observed that by winding the ropes 25 upon the drum 23, which may be accomplished by means of the hand-wheel 24, a strain in an upward direction will be imparted to the lower cross-piece 13 of the grate-frame, which will thus be elevated, the hook members 15 riding upon the bars 8, while the frame 21 and links 20 will be folded against the frame structure of the device to the approximate position indicated in Fig. 2 of the drawings.

The carrier of my improved device is composed of a cross-bar 28, the ends of which are provided with plates 29, having pulleys 30 31,

engaging, respectively, the upper and under sides of the inclined track-bars 5. Hingedly connected with the cross-bar 28 is the load-supporting frame 32, and near the ends of said cross-bar, between the end plates 29 and the load-supporting frame, are hinged arms 33, connected by means of braces 34 with the sides of said load-supporting frame near the front end of the latter. The hoisting-ropes 35 are connected with the upper ends of the arms 33 and passed from thence over pulleys 36, mounted upon the inner sides of the track-bars 5, near the upper ends of the latter, suitable guides, as 37, being provided to prevent the displacement of the hoisting-ropes. From the pulleys 36 the ropes 35 are guided over pulleys 38 39, connected, respectively, with the cross-piece 7 and with the rear sill 2 of the machine to the point of attachment of the draft, which may consist of an ordinary swingletree 40, with which the ends of the ropes are suitably connected. It is obvious, of course, that any convenient power may be utilized for operating my improved hay-stacker.

In operation the load may be deposited upon the carrier while the latter is in a lowered position either by means of gathering-rakes, such as are usually employed for this purpose, or in any other convenient manner. By applying draft to the hoisting-ropes a strain in an upward direction will be imparted to the arms 33 of the carrier, said strain being counterbalanced by the load upon the carrier, which will thus easily and without undue friction ride in an upward direction upon the inclined track-bars until the point of discharge is reached, when the strain upon the upper ends of the arms 33 will cause the outer end of the carrier-frame to be tilted in an upward direction, thus causing the load to be discharged rearwardly between the track-bars. The grate-frame, with its hinged rearwardly-extending discharge-frame 21, may be adjusted as described to determine the point of discharge, thereby making it unnecessary to elevate the load beyond the point absolutely necessary. In order to retain the slidable grate-frame in adjusted position, the shaft or drum 23 may be provided with a ratchet-wheel, as 45, engaging a pawl 46, pivotally connected with the frame structure, or other suitable means may be employed for this purpose.

Having thus described my invention, I claim—

1. In a hay-stacker, an inclined track-frame, supporting means for the same, side bars disposed adjacent to and spaced from the inner sides of the track-bars, and an adjustable grate-frame supported at its upper end upon the side bars.

2. In a hay-stacker, an inclined track-frame, supporting means for the same, side bars disposed adjacent to and spaced from the inner sides of the track-bars, a cross-piece connecting the track-bars, parallel bars connecting said cross-bar with the front sill of the supporting-frame, a grate-frame slidably connected with said parallel bars, a discharge-frame connected hingedly with the upper end of the grate-frame and having hooked-shaped extensions riding upon the side bars of the device, links connecting the outer end of the discharge-frame with uprights forming part of the supporting means, a drum journaled upon said uprights and having a hand-wheel, flexible connections between said drum and the lower end of the grate-frame, and guide-pulleys for said flexible connection.

3. In a hay-stacker, the combination with an inclined track-frame, of a slidable grate-frame, a discharge-frame connected with the upper end of the same, and link-supports for the outer end of said discharge-frame.

4. In a hay-stacker, the combination with an inclined track-frame having side bars disposed adjacent to and spaced from the inner sides of the track-bars, a slidable grate-frame, a discharge-frame having hook-shaped extensions riding upon and supported by the side bars, and supporting-links connected pivotally with the free end of the discharge-frame.

5. In a hay-stacker, an inclined track-frame, side bars disposed adjacent to and spaced from the track-bars, a carrier comprising a pair of plates having rollers engaging the track-bars, a rod connecting said plates, a load-supporting frame hingedly connected with said rod, arms extending from the latter and braces connecting said arms with the load-supporting frame, and hoisting means.

6. In a hay-stacker, the combination of an inclined track-frame, side bars disposed adjacent to and spaced from the inner sides of the track-bars, a slidable grate-frame, a discharge-frame hingedly connected with the upper end of the grate-frame, links connecting said discharge-frame with supporting-points and a carrier mounted to travel upon the track-bars and comprising a rod, track-engaging means connected with said rod, a load-supporting frame hingedly connected with said rod, arms hingedly connected with the latter, and braces connecting said arms with the load-supporting frame.

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

WILLIAM FAGAN.

Witnesses:

R. R. HORTH,
MABEL W. PALMER.