

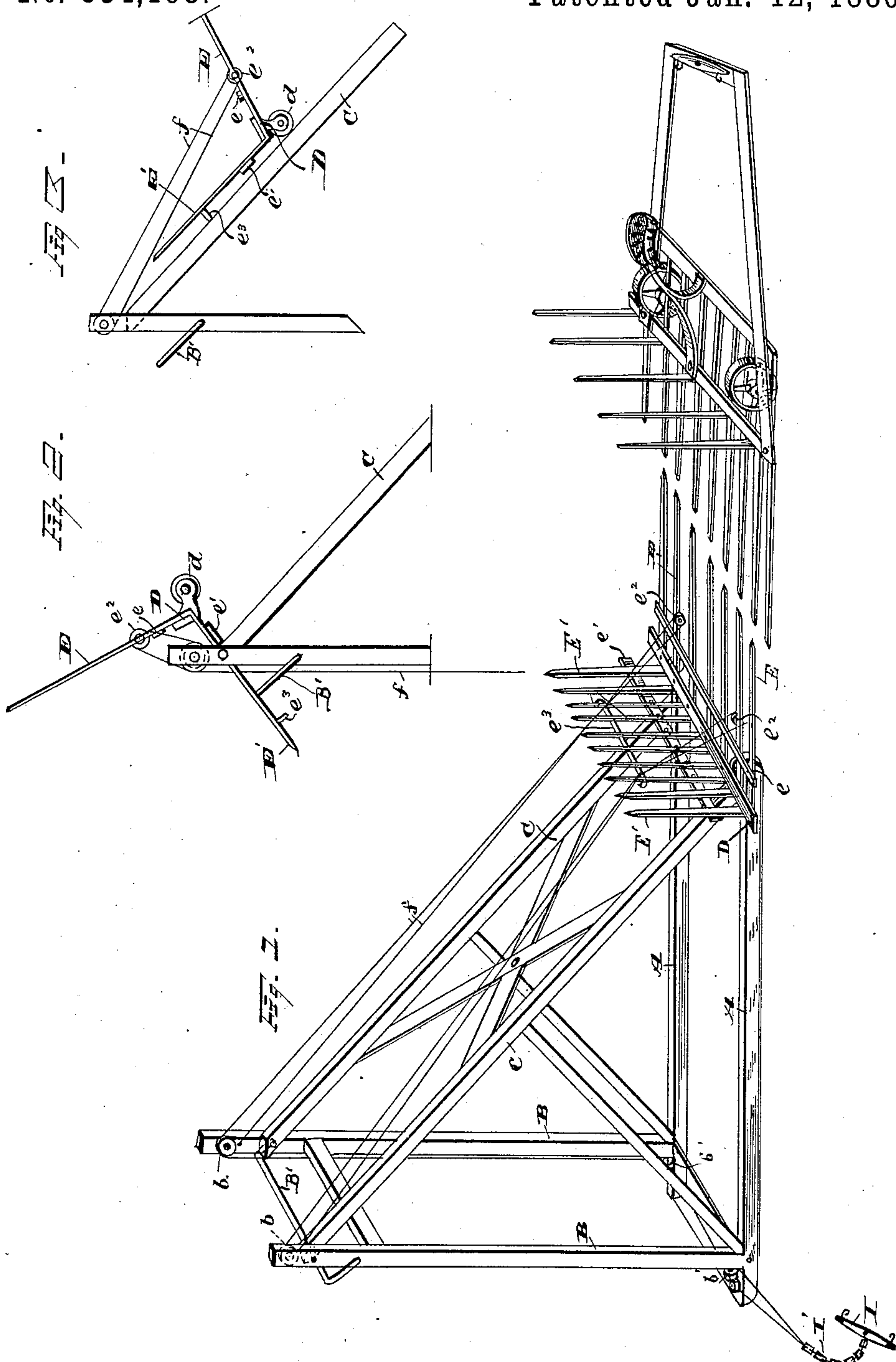
(No Model.)

J. S. RAYL.

HAY STACKER.

No. 334,193.

Patented Jan. 12, 1886.



WITNESSES

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UNITED STATES PATENT OFFICE.

JAMES S. RAYL, OF GREEN CAMP, OHIO.

HAY-STACKER.

SPECIFICATION forming part of Letters Patent No. 334,193, dated January 12, 1886.

Application filed September 29, 1885. Serial No. 178,536. (No model.)

To all whom it may concern:

Be it known that I, JAMES S. RAYL, of Green Camp, in the county of Marion and State of Ohio, have invented certain new and useful Improvements in Hay-Stackers; 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 pertains to make and use the same.

My invention relates to improvements in hay-stackers in which the elevating device or stacker proper consists of a suitable frame-work adapted to receive hay from a so-called "gopher" or "drag-rake."

A frame-work is provided with inclined ways upon which the elevating device is drawn, and dumped at the upper end of the same, the object being to provide a portable structure that is easily dragged from place to place and when wanted is ready for work, it being unnecessary to detach any of the parts in moving the device.

With this object in view my invention consists in certain features of construction and in combination of parts, hereinafter described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a view in perspective of my improved hay-stacker, showing the elevating-frame at the bottom of the inclines in position to receive hay from the drag-rake, the latter device being shown in position approaching the stacker to deliver its load to the latter. Fig. 2 is a view in elevation showing the elevator in its dumped position at the top of the inclines.

A suitable frame-work is provided consisting of the sills or runners A, posts B, inclines C, the latter being attached on the inside of the posts, as shown, and suitable cross-pieces and braces. The frame-work is light, and is easily dragged about the field on the runners. The elevator consists of a head, D, provided with two sets of teeth, E and E', that join the head approximately at right angles, the teeth E usually being made longer and heavier than the teeth E'. The teeth E are connected by a cross-bar, e, and the teeth E' by the cross-bar e', the latter being located on the outside of the teeth, as shown. The head D is mounted on flanged carrying-wheels d, that travel on the respective inclines C. Ropes f are attached to the respective posts near the top of the lat-

ter and lead to the pulleys e², the latter being attached to the elevator at or near the cross-piece e and some distance from the head D, as shown. From thence the ropes lead back over the pulleys b, located, as shown, on the inner face of the posts and near the top thereof. From thence the ropes lead down the sides of the posts to the pulleys b', and from thence to one side of the frame, where the ropes are connected with the whiffletree I, or an intermediate chain or other connection, I'. A cross-bar, e³, or other suitable device, is connected with the teeth E', well out toward the point of these teeth, to elevate the ropes when the same is in the position shown in Fig. 1.

In operating the hay-stacker, the drag-rake with its load of hay is drawn up so that the teeth of the gopher pass in between the teeth E of the elevator, and the horse is started to operate the elevator. As the ropes are drawn taut by reason of the ropes passing over the cross-bar e³ and of the pulley e² being located as aforesaid, the elevator is first tilted to the position shown in Fig. 3, with the cross-piece e³ resting upon the inclines. In this position the elevator is drawn up the incline, the cross-piece e³ sliding on the incline, but the greater part of the weight of the elevator and load being supported by the carrying-wheels d. As the elevator approaches the top of the inclines, the cross-bar e³ passes between the post, and the cross-bar e' being longer abuts against the post, the latter forming stops for the elevator. Meantime, the forward side of the elevator having passed over the ends of the inclines tilts down upon the cross-bar B' and dumps the hay. (See Fig. 2.) When the ropes are slack, the elevator by its own gravity runs down the inclines and assumes the position shown in Fig. 1, and is ready for receiving another load of hay from the drag-rake.

In moving the device it is not necessary to detach the rope or remove the elevator from the inclines, and consequently when the apparatus has been dragged to the desired location it is ready for work.

What I claim is—

1. In a hay-stacker, the combination, with a frame-work having an inclined tramway, of an elevator having two sets of teeth arranged substantially as described, a cross-bar secured

to one of said sets of teeth in the position shown, and an elevating-rope passing over said cross-bar and connected with the elevator at a point behind said cross-bar, substantially as set forth.

5 2. In a hay-stacker, the combination, with a portable frame-work having the inclined tramway and the bar B', of the elevator having two sets of teeth, substantially as described, wheels *d*, a cross-bar secured to one
10 set of teeth, and elevating-ropes passing over

said cross-bar and connected to the elevator at a point behind said cross-bar, substantially as set forth.

In testimony whereof I sign this specification, in the presence of two witnesses, this 22d
15 day of September, 1885.

JAMES S. RAYL.

Witnesses:

H. M. AULT,

J. Q. CODDING.