

(No Model.)

2 Sheets—Sheet 1.

E. J. THURBER.
HAY STACKER.

No. 580,964.

* Patented Apr. 20, 1897.

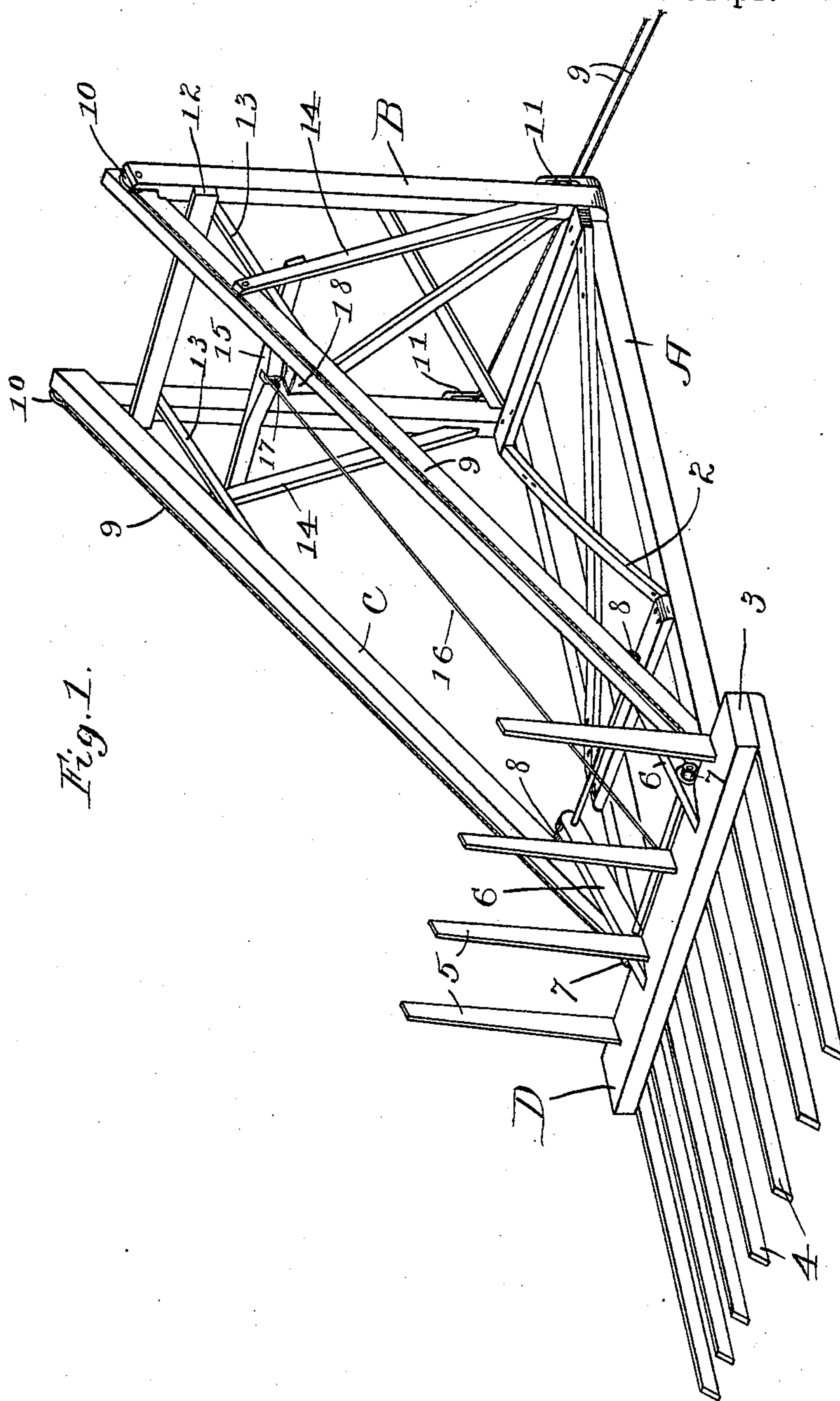


Fig. 1.

Witnesses:

H. S. Bradley
A. S. Johnson

Inventor:

Ezra J. Thurber

per: *J. P. Murray*
Attorney.

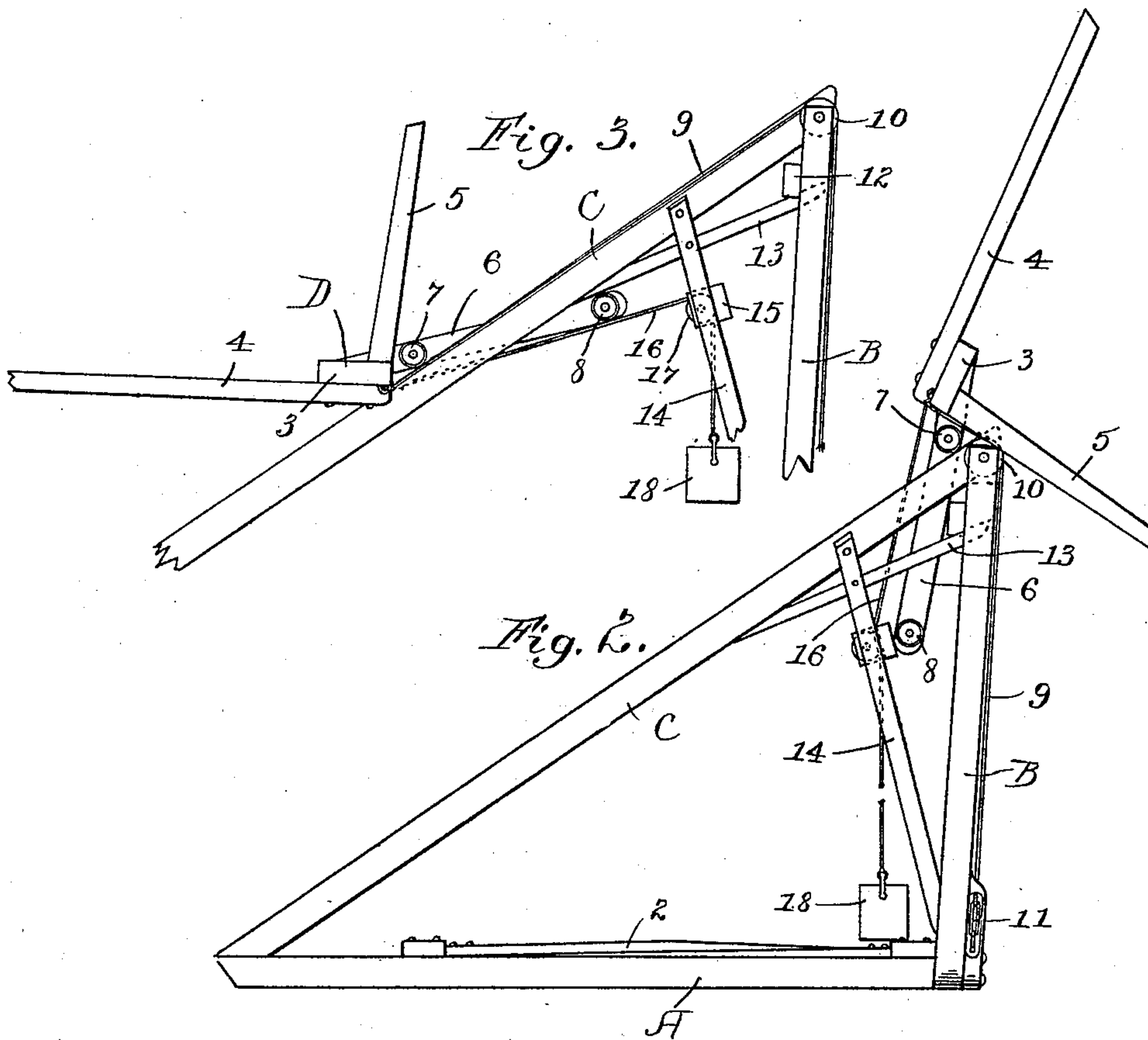
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2 Sheets—Sheet 2.

E. J. THURBER.
HAY STACKER.

No. 580,964.

Patented Apr. 20, 1897.



Witnesses:

F. G. Zedberg.
H. S. Johnson.

Inventor:

Ezra J. Thurber.
per: *V. D. Merwin*
Attorney.

UNITED STATES PATENT OFFICE.

EZRA J. THURBER, OF LOGAN, MINNESOTA.

HAY-STACKER.

SPECIFICATION forming part of Letters Patent No. 580,964, dated April 20, 1897.

Application filed July 20, 1896. Serial No. 599,889. (No model.)

To all whom it may concern:

Be it known that I, EZRA J. THURBER, of Logan, Redwood county, Minnesota, have invented certain Improvements in Hay-Stackers, of which the following is a specification.

My invention relates to improvements in hay-stackers, its object being to provide a simple and improved construction of the same.

To this end my invention consists in the construction and combination hereinafter more particularly described and claimed.

In the accompanying drawings, forming part of this specification, Figure 1 is a perspective view of my improved hay-stacker. Fig. 2 is a side elevation of the same with the carrier in elevated position, and Fig. 3 is a similar partial view with the carrier in transit.

In the drawings, A represents the main horizontal frame of my improved hay-stacker, B the upright end standards, and C the connecting inclined track-beams. The frame is connected and supported by suitable braces 2.

D represents the carrier, consisting of the cross-beam 3, provided with outwardly-projecting fingers 4, adapted to rest upon the ground when the carrier is in the position shown in Fig. 1, and with upwardly-projecting teeth or fingers 5. Projecting rearwardly from the cross-beam 3 upon the inside of the track-beams are the arms 6, provided at their opposite ends with rolls 7 and 8, adapted to bear, respectively, upon the upper and lower faces of the track-beams to hold the carrier in place and allow it to travel upon said beams. The carrier is actuated by the ropes 9, passing up the track-beams and over and around the pulleys 10 and 11 at the upper and lower ends, respectively, of the standards B.

12 represents the cross-bar, connecting the standards B a slight distance below the top and serving as a trip for the carrier to throw the same into dumping position. Supplemental track or guide beams 13 extend from the main track-beams a slight distance from the top of the frame to the upright standards B underneath the cross-bar 12. These guide-beams are engaged by the rolls 8, so as to gradually tilt the carrier as it approaches the top of the stacker and to bring the ends of the arms 6 into contact with the cross-bar 12.

14 are brace-arms extending from the track-beams to the lower ends of the standards B

and connected near their tops by the cross-bar 15, which bar serves to trip the carrier back into normal position upon the track-beams after its load has been dumped and allow it to slide downward into receiving position, as shown in Fig. 1.

In order to prevent the carrier lowering to the ground too fast, I provide a brake for the same. This consists of the rope 16, secured to the under side of the beam 3 of the carrier and passing up to and over the pulley 17, secured to the cross-bar 15, the free end of the rope being provided with a weight 18 to nearly equal the weight of the carrier. Thus as the carrier slides down the track-beams it must lift the weight 18, which prevents it from lowering to the ground too fast.

In operation with the load in place upon the carrier the same is drawn up the track-beams by means of the ropes 9, to which suitable draft is applied, the rolls 7 and 8 bearing upon the upper and lower faces, respectively, of the track-beams C. As the carrier approaches the top of the beams it is gradually tilted by means of its rolls 8 coming in contact with the guide-beams 13, the ends of the arms 6 then coming in contact with the cross-bar 12, tilting the carrier over the end of the frame and depositing its load of hay well upon the stack. The ropes then being slackened, the carrier will slide down the track-beams, the ends of the arms striking the cross-bar 15 and throwing it back into normal position upon the track-beams, as shown in Fig. 2, the carrier continuing to slide down the track into resting position upon the ground to receive another load.

I do not claim that the idea is broadly new, but I merely claim the novelties of construction by which a much more simple and efficient stacker is produced than ordinarily used.

By having a single track-rail upon which both the carrier-rolls travel and by tripping the carrier by a bar which is arranged approximately at the top of the end standards the carrier is tilted over the end of the stacker and the load thrown well upon the stack. Also by having a stacker working upon the inside of the frame instead of upon the outside there is less strain and better results are accomplished. Other novelties of construc-

tion over the ordinary stacker will be evident from the drawings and following claims.

I claim—

1. In a hay-stacker, in combination, the
5 single inclined track-beams, the upright standards supporting the rear ends thereof, the carrier, the arms projecting rearwardly from said carrier between said track-beams, and provided with rollers bearing respectively
10 against the upper and lower faces of said beams, the cross-bar connecting the tops of said standards below the track-beams, and the guide-beams connecting said cross-bar with the track-beams, whereby the carrier is
15 gradually tilted as it approaches the top of the frame, its rearwardly-projecting arms being brought in contact with said cross-bar to turn the carrier over the end of the frame in dumping position.

20 2. In a stacker, the combination of the single, inclined track-beams, the upright standards supporting the rear ends thereof, the carrier, the rearwardly-projecting arms therefor, provided with rollers bearing re-
25 spectively against the upper and lower faces of the track-beams, the means for drawing the carrier up said beams, the cross-bar connecting the upper ends of said upright stand-
30 ards beneath said track-beams, and adapted to be engaged by the arms upon said carrier to tilt the same over the end of the stacker, and the horizontal cross-bar arranged under-
neath the track-beams adapted to be engaged

by the carrier after its load has been dis-
charged, to throw it back into normal posi- 35
tion, and allow it to slide down the track-
beams.

3. In a stacker, the combination of the single, inclined track-beams, the upright standards supporting the rear ends thereof, 40
the carrier, the rearwardly-projecting arms therefor, provided with rollers bearing re-
spectively against the upper and lower faces of the track-beams, the cross-bar connecting
45 the upper ends of said upright standards be-
neath said beams and adapted to be engaged by the arms upon said carrier to tilt the same
over the end of the stacker, the horizontal
cross-bar arranged underneath the track-
beams, to throw the carrier back into normal 50
position after its load has been discharged, and the guide-beams connecting the track-
beams adjacent said horizontal cross-bar with the upright standards adjacent their connect-
ing tilting-bar, whereby the carrier is gradu- 55
ally tilted as it approaches the top of the frame, and its rearwardly-projecting arms are brought into contact with the tripping-
bar.

In testimony whereof I affix my signature 60
in presence of two witnesses.

EZRA J. THURBER.

Witnesses:

N. A. WELCH,
ADA B. THURBER.