

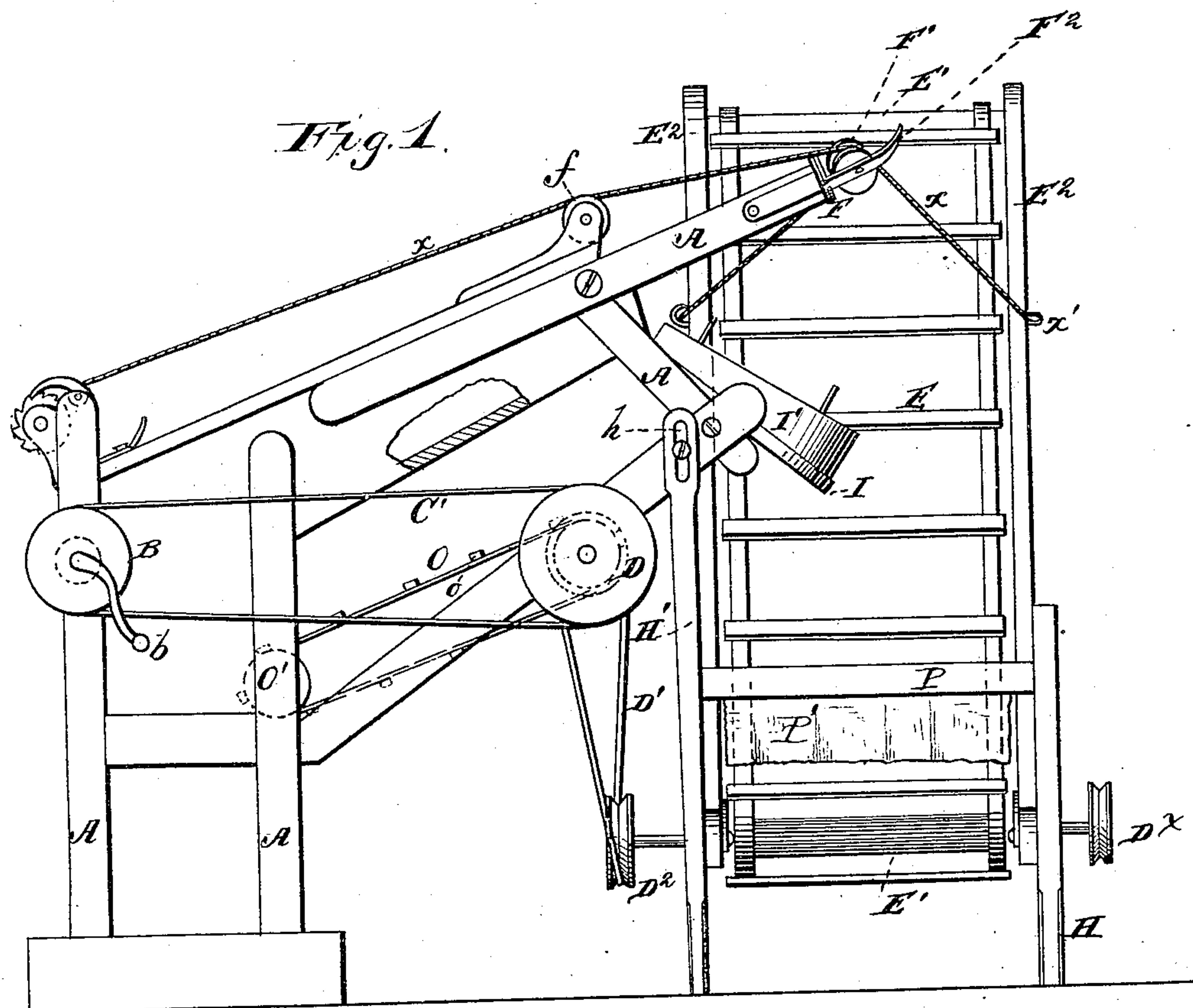
(No Model.)

2 Sheets—Sheet 1.

M. F. HARTMAN.  
Straw Elevator.

No. 238,584.

Patented March 8, 1881.



Witnesses.  
J. McNamee  
E. H. Bradford.

Inventor.  
M. F. Hartman  
By J. F. Ennis atty

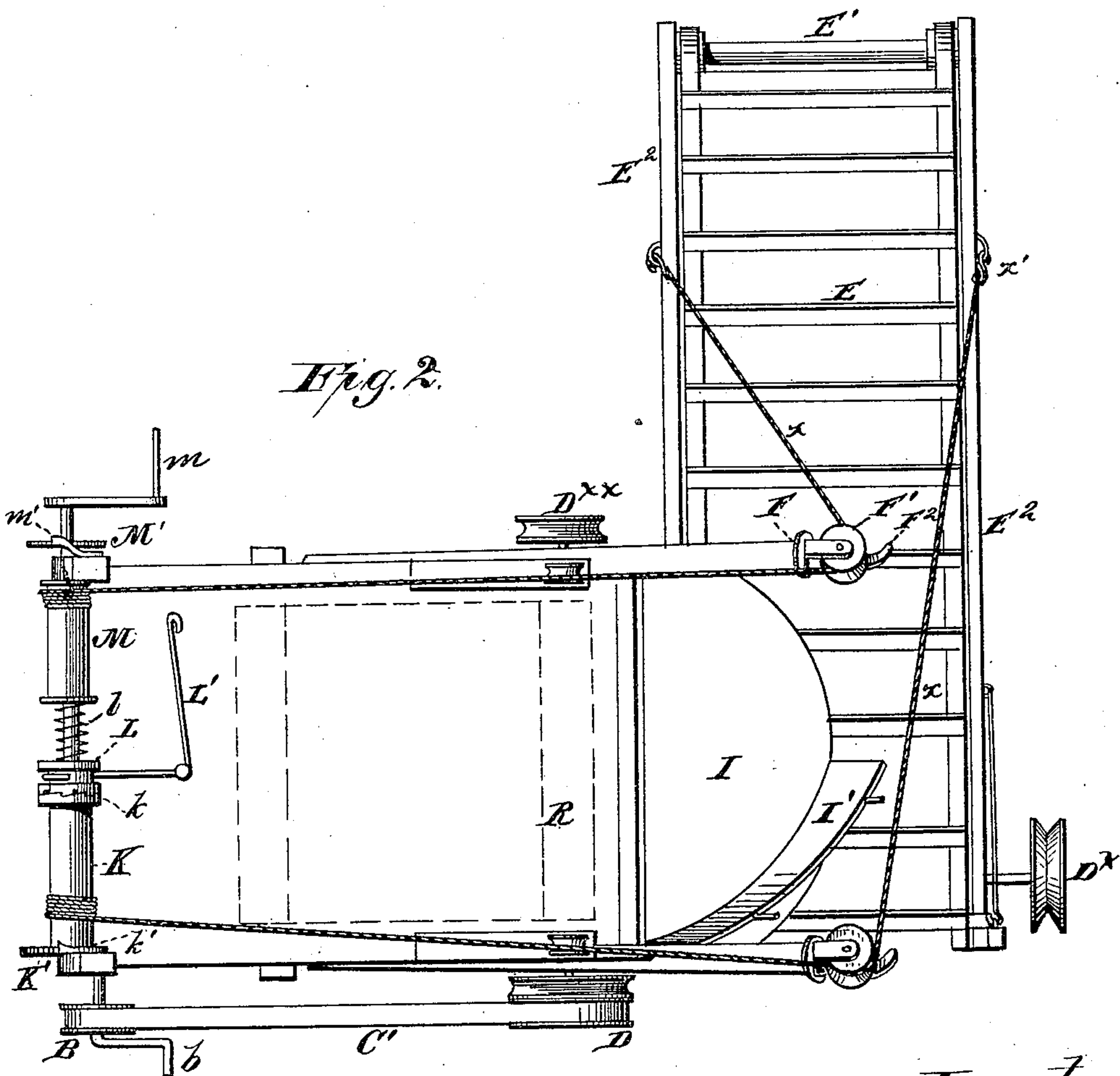
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# UNITED STATES PATENT OFFICE.

MICHAEL F. HARTMAN, OF HENRIETTA, PENNSYLVANIA.

## STRAW-ELEVATOR.

SPECIFICATION forming part of Letters Patent No. 238,584, dated March 8, 1881.

Application filed August 11, 1880. (No model.)

*To all whom it may concern:*

Be it known that I, MICHAEL F. HARTMAN, a citizen of the United States, residing at Henrietta, in the county of Blair and State of Pennsylvania, have invented certain new and useful Improvements in Straw-Elevators; 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, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

My invention relates to an improved straw-carrier, adapted for service principally upon thrashers, but it may be used elsewhere; and the novelty consists in the construction and arrangement of parts, as will be more fully hereinafter set forth, and pointed out in the claims.

In this art it is often a great convenience to be able to change the straw-carrying device from one position to another, to load on different vehicles, to stack, &c., and my invention is designed to subserve that purpose. It is a desideratum, also, to carry the chaff from the riddle to the straw to prevent clogging, and my invention is designed for that result.

The straw-carrying elevator is elevated at such an angle that the wind from certain points often obstructs the usefulness of the same, and to avoid this I have devised my carrier so that it may, in a few minutes, be changed to suit the wind.

In thrashing in a barn it is desirable to carry the straw and chaff to either an end loft or either side lofts, and my invention provides for this.

These objects I accomplish by means of the devices shown in the accompanying drawings, in which—

Figure 1 is a side elevation, and Fig. 2 a plan view.

The invention, as hereinafter described, is supposed to be behind the fan, and the other parts of a standard thrashing-machine will not be described. The device will, however, be understood to be applicable to any thrasher now in use.

Referring to the drawings, A represents a

proper frame, and B a pulley journaled upon a shaft therein, carrying a belt, C', and operated by a crank or power pulley, b. The belt C' connects with a double pulley, D, which carries a belt, D', which connects with a pulley, D<sup>2</sup>, upon a shaft, the other end of which carries a pulley, D<sup>x</sup>, to be connected by the same belt when the elevator is reversed. Upon the other end of the shaft on which the pulley D is hung is a pulley, D<sup>x</sup>, for a similar purpose—i. e., the belt D' is changed from the pulleys D D<sup>2</sup> to the pulleys D<sup>x</sup> D<sup>x</sup> as the elevator extends in either side position.

E represents the straw-carrier, which is, as usual, an endless belt with cleats, and it operates over rollers E' in the elevator-standards E<sup>2</sup>.

F represents a bracket, secured to each of two arms of the frame A, in which is pivoted a swivel-pulley, F', having a guard-finger, F<sup>2</sup>. Over these pulleys F' operates a chain or rope, x, one upon each side, which are at one end secured to the side rails or standards, E<sup>2</sup>, of the elevator. Extending from their connection at the elevator at x' these ropes pass over the pulleys F', thence over pulleys f, and thence to a clutch-windlass, now to be described. Upon a shaft having an operating-crank is a loose sleeve, K, over which is wound one of the ropes x, and it is provided with a ratchet, K', and dog or pawl k' upon one end, and a clutch-rack, k', upon the other, the latter gearing with a clutch, L, governed by a lever, L', and held in force by a spring, l.

M represents the sleeve over which the other rope, x, is wound; M', a ratchet; m', also a pawl, and m the crank.

It will be observed that the operator, by means of the pawls m' k' and lever L', may at will wind either of the ropes x as the elevator is extended on either side. The elevator is supported upon one side by a standard, H, and upon the other by a longer standard, H', having a slot, h, in which operates a screw or the like to adjust it to the frame A.

I represents a shed or apron leading from the thrasher-chute to the carrier, and I' an interchangeable curved guide. This latter may be changed from one side to the other as the elevator is changed.

Between the standards of the elevator H H' is an interchangeable bar, P, carrying an apron,

P', which, while it prevents the chaff from falling by gravity, will allow the heavier grain to do so.

Upon the shaft of the pulley D is a roll, 5 which carries an endless apron or chaff-carrier, O o, which is also carried over a roll, O', the shaft of which is journaled in the frame A. The object of this latter device is to carry the chaff from the riddles over and deposit it upon 10 the straw-carrier.

From the foregoing description the operation of the invention is obvious.

It will be understood that the straw-elevator may be adjusted at any height and placed in 15 any angle desired.

The posts H H' have sharp lower points, and the ropes x admit of any elevation, while the belt D' may be arranged to work without regard to the position of the elevator.

20 What I claim as new, and desire to secure by Letters Patent, is—

1. In a straw carrier or elevator, the combination, with the standards E<sup>2</sup> and frame A, of the supporting-standard H and adjustable standard H', both of said standards provided 25 with sharp lower extremities, substantially as and for the purpose herein shown and described.

2. The combination, with the elevator E E' E<sup>2</sup>, of the brackets F F, provided with swivel-pulleys F' F', having guard-fingers F<sup>2</sup> F<sup>2</sup>, ropes 30 x x, and the clutch-windlass composed of the sleeves M K, clutch L, ratchets K' M', and pawls k m', the several parts constructed and relatively arranged to operate substantially in 35 the manner herein shown and described.

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

M. F. HARTMAN.

Witnesses:

J. D. TRELFALL,  
WM. MCKILLIP.