

(No Model.)

2 Sheets—Sheet 1.

H. THOMAN.
STRAW CARRIER.

No. 336,448.

Patented Feb. 16, 1886.

Fig. 1.

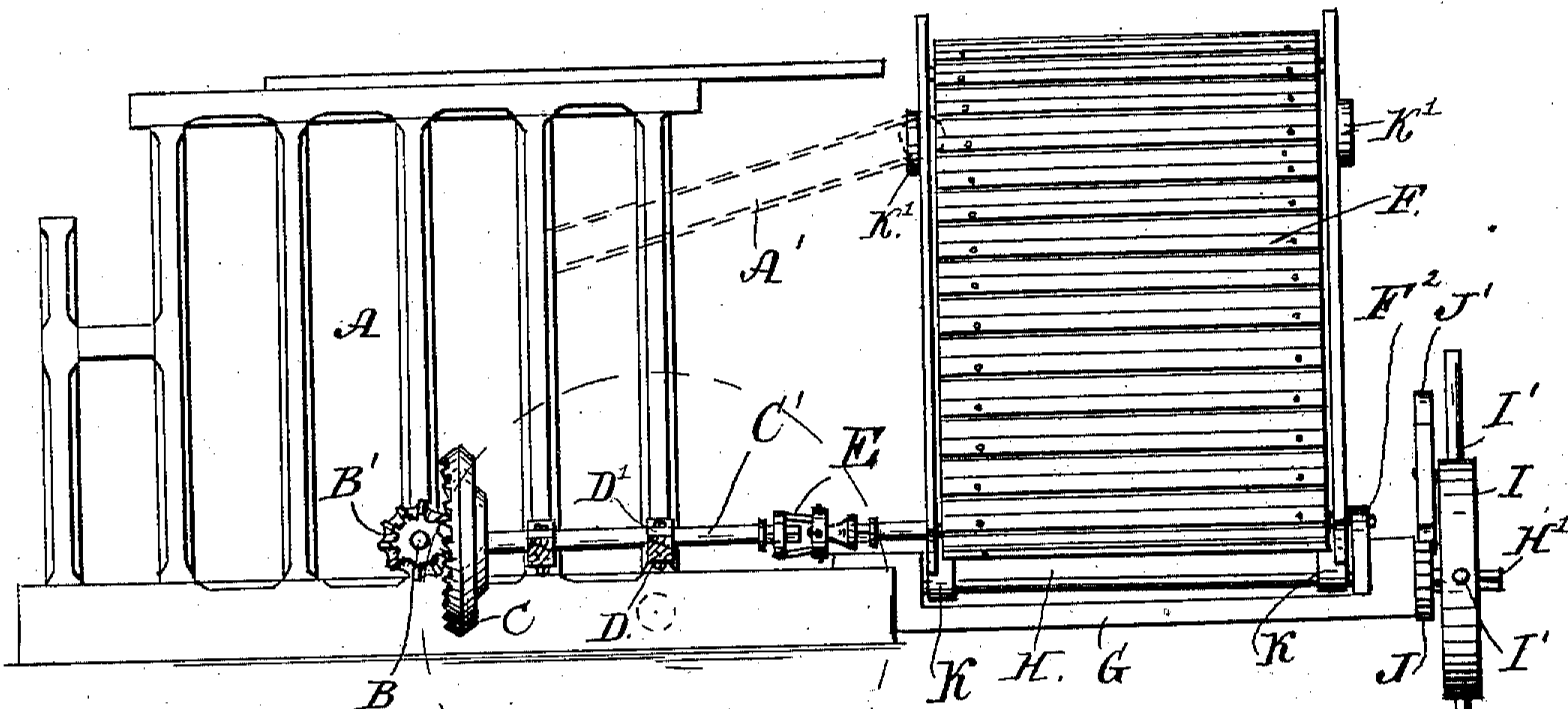


Fig. 3.

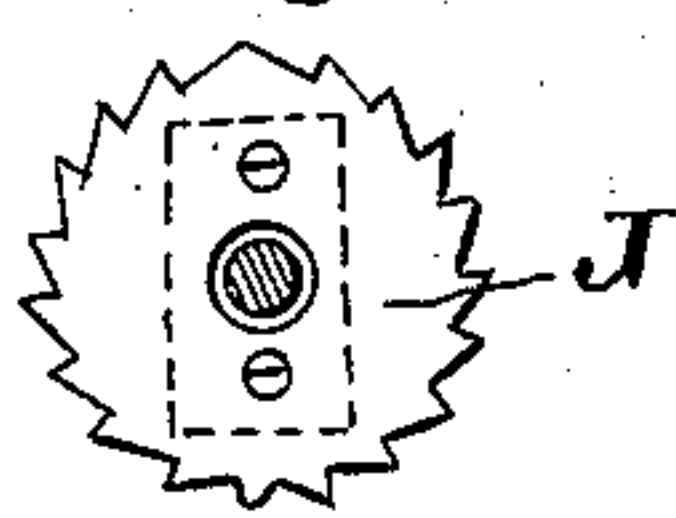


Fig. 2.

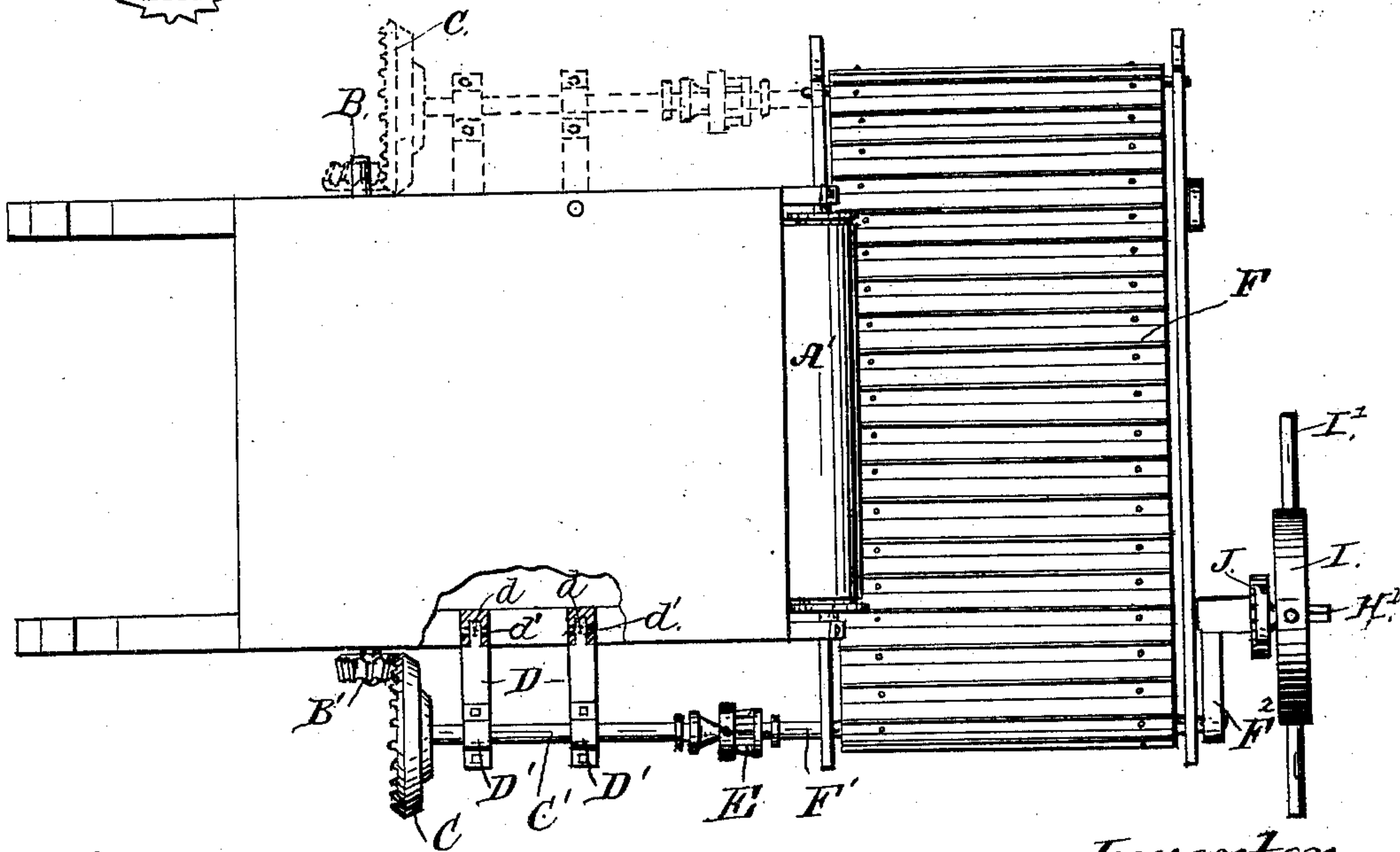
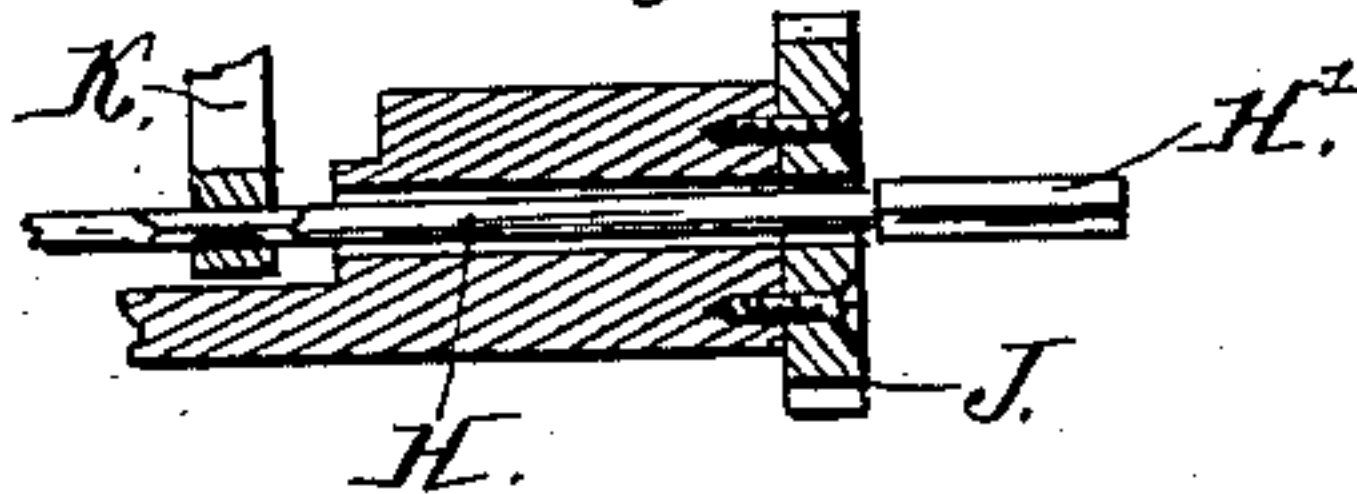


Fig. 4.



Witnesses.

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2 Sheets—Sheet 2.

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Fig. 5.

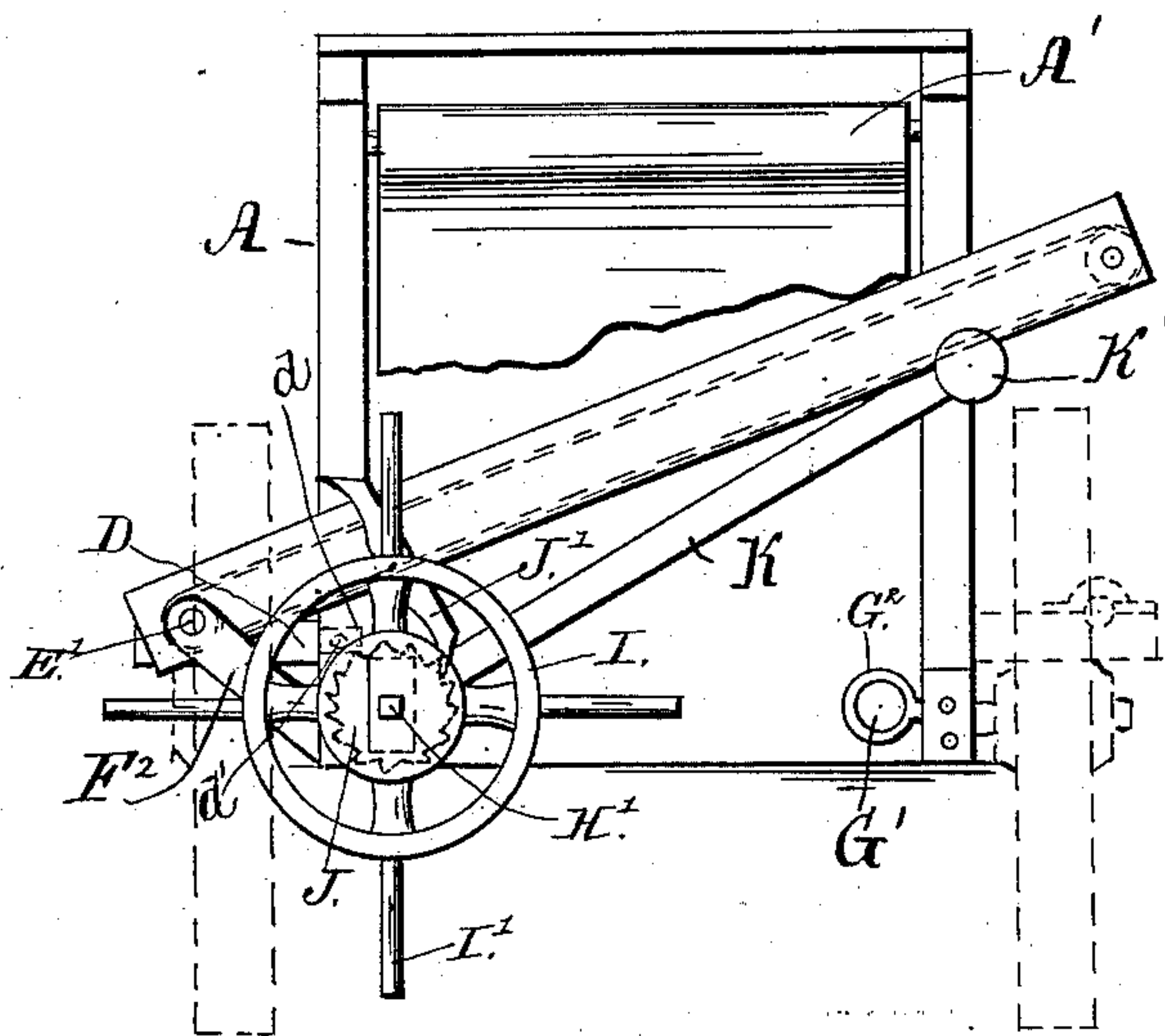
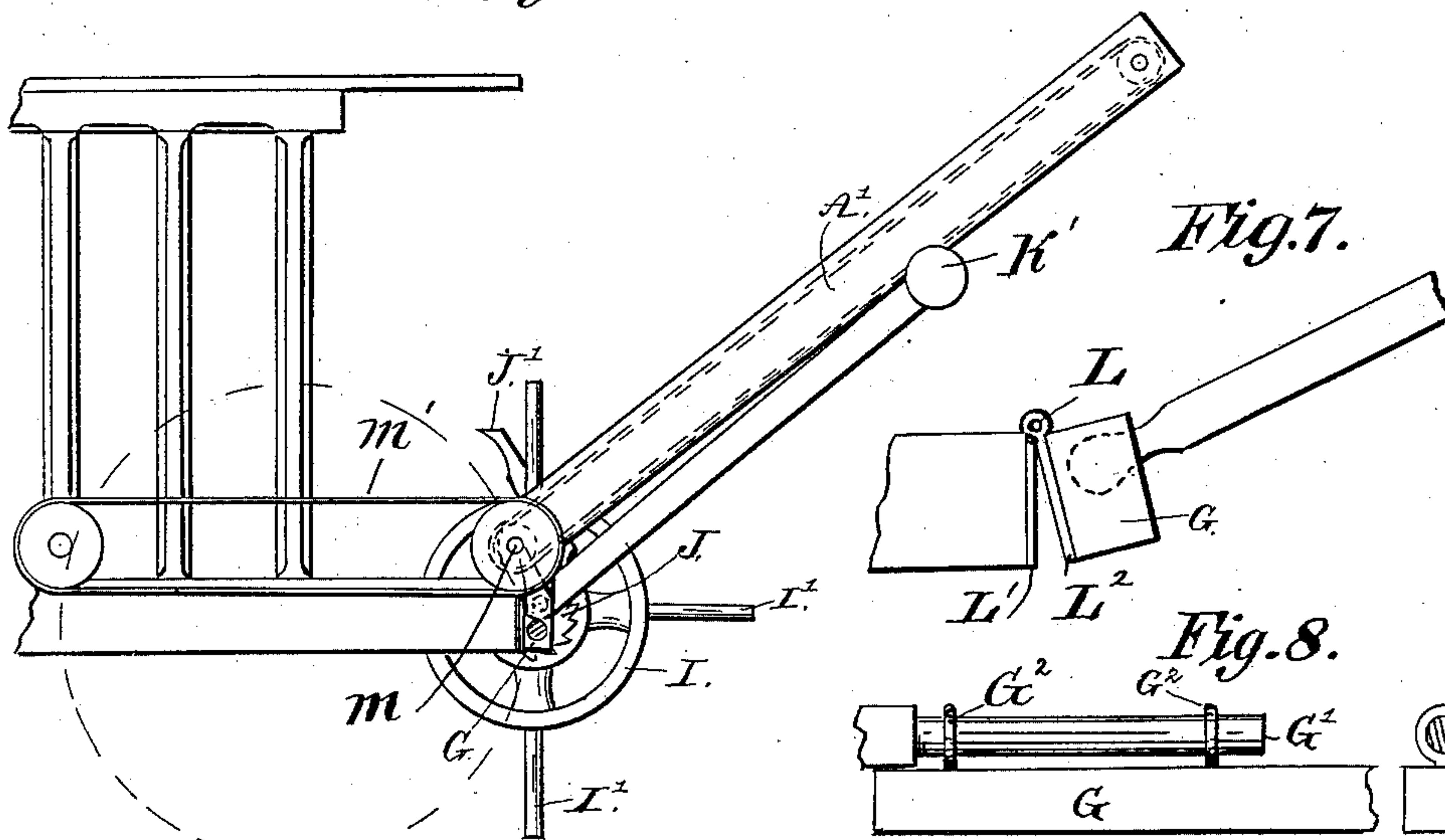


Fig. 6.



Witnesses

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UNITED STATES PATENT OFFICE.

HENRY THOMAN, OF LEESVILLE CROSS ROADS, OHIO.

STRAW-CARRIER.

SPECIFICATION forming part of Letters Patent No. 336,448, dated February 16, 1886.

Application filed May 12, 1885. Serial No. 165,258. (No model.)

To all whom it may concern:

Be it known that I, HENRY THOMAN, a citizen of the United States, residing at Leesville Cross Roads, in the county of Crawford and State of Ohio, have invented certain new and useful Improvements in Straw-Carriers; and I do declare the following to be a full, clear, and exact description of the invention, such as it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

This invention relates to straw-carriers for use on thrashing-machines; and it has for an object to provide, in connection with the carrier, suitable gearing and supporting devices by which the carrier may be readily adjusted from side to side of the machine, and may be set to and held at any suitable angle in order to deliver the straw higher or lower, as may be desired in stacking.

The invention consists in certain novel constructions and combinations of parts, which will be hereinafter first fully described, and then pointed out in the claims.

In the drawings, Figure 1 is a side view, and Fig. 2 a top plan view, of my invention applied to the framing of a thrasher, a portion of the latter being broken away to show the preferred method of removably attaching the carrier driving-shaft supports. Fig. 3 is a detail view of the ratchet. Fig. 4 is a detached sectional view representing the bearing-bar, the shaft, and a portion of the carrier supporting-frame. Fig. 5 is a front elevation of the improvement applied to a thrasher. Figs. 6 and 7 represent a modification in the arrangement of the carrier and its supporting devices, and Fig. 8 is a detail view, all of which will be described and claimed.

Referring to the drawings, A represents a portion of the framing of an ordinary thrashing-machine, and A' represents the endless belt-carrier, by which the straw is carried out of the machine. This thrasher is provided with a transverse shaft, B, which extends slightly beyond the thrasher on each side, and is fitted to receive the pinion B'. This pinion meshes with a gear, C, which is secured on a shaft,

C', journaled in bars D, which project from and are removably secured to the framing in any suitable manner, but preferably by inserting the tenons *d* on the ends of said bars into sockets formed in the frame of the thrasher and securing the same in place by pins *d'* passed through said frame and tenons. The bearing caps D' are removable, in order that the shaft C' may be reversed in the bars D when the said bars are moved to the opposite side of the machine, as indicated in dotted lines, Fig. 2. The shaft C' extends toward the rear end of the thrasher, and is coupled, preferably by a universal joint, E, with one of the shafts, F', of the carrier F, in such manner, as shown, as to revolve the shaft F' and give motion to the carrier when the thrashing-machine operates. This carrier F is arranged and operates at right angles to the thrashing-machine in order to carry the straw to one or the other side thereof, as will be understood from the drawings. The bearing-bar G is secured to the framing of the thrasher preferably by inserting its end G' into eyes G², secured on the inner side of the base-beam of such thrasher, as shown in Fig. 8. I prefer this construction because by it the bearing-bar may be readily removed when it is desired to adjust it to the other side of the machine, as will be presently described. The frame of the carrier F is connected by a bar, F², with the bearing-bar near the outer end of the latter, the connection between the bar F² and the carrier-frame being a pivotal one, by perforating the bar F² and slipping the opening so formed over the outer end of the shaft F' of the carrier, as will be understood from Fig. 5. In the bearing-bar I journal a shaft, H, having its end H' projected beyond the bearing-bar in position to be turned. I prefer to operate this shaft by a hand-wheel, I, keyed on its outer end, and having suitable handles, I', by which it may be revolved. This wheel I is provided with a pawl, J', which is arranged to engage a ratchet, J, fixed to the bearing-bar. By this pawl J' and ratchet J the wheel I may be rigidly secured to the bearing-bar, and by reason of the key of said wheel I on the shaft H the latter will also be held from turning in the bearing-bar. To this shaft H is secured one end of the bars K K.

These bars K form the carrier-adjusting frame, and their outer extremities bear under such frame, so that as said extremities are raised or lowered they accomplish a corresponding raising or lowering of the carrier-frame. In order that these bars K may more accurately engage the carrier-frame, they may be provided with flanges K', which extend on either side of and embrace said frame, thereby preventing any accidental lateral displacement thereof.

The operation of the carrier-adjusting devices will be most clearly understood from Fig. 5. It will be noticed that as the wheel I is revolved to the left it will revolve the shaft H and will operate to raise the outer ends of the supporting-frame K K and raise the carrier so that it will deliver the straw higher than before. A reverse movement of the wheel I will operate to lower the carrier, and it may be held at any desired point of elevation by means of the pawl J' engaging the ratchet J. By this construction the straw from the carrier may be delivered close to the ground in starting a stack, and may be gradually raised to deliver the straw at higher points as the stack is built upward.

In the construction shown in Figs. 1, 2, and 3 the carrier is arranged to deliver the straw to the left side of the thrasher. In case it is desired to deliver the straw to the other side of the thrasher, it is only necessary to remove the parts B', C, D, and E to the opposite side of the machine, as indicated in dotted lines, Fig. 2, and adjust the bearing-bar and carrier-frame also to the opposite side in a manner that will be readily understood.

In order to facilitate the adjustment of the bearing-bar to the opposite side of the machine, I find it desirable to employ two sets of the eyes G², one set being arranged on the inner side of each of the base-beams of the thrasher, as will be understood from Fig. 5.

Where it is desired to run the straw straight back from the thrasher, instead of connecting the bearing-bar with the thrasher by means of the portion G' and the eyes G², I find it desirable to connect such bearing-bar with the thrasher-frame by means of the hinge L, one strap, L', of which I screw to the end of the base-beam of the thrasher, and the other strap, L², of which I screw to the rear side of the bearing-bar. I arrange the knuckle of this hinge at its upper side, as shown in Fig.

7. I prefer this construction because in case it is desired to remove the bearing-bar and the devices carried thereby it is only necessary to raise such bar from the position shown in Fig. 7 and unscrew one of the straps, L' or L², as will be understood. In this arrangement I find it desirable to substitute for the gears B' C band-pulleys m, arranged one on the shaft of the straw-carrier and the other on the shaft of the thrasher and connected by a suitable belt, m', as shown in Fig. 6.

It will be understood that the operation of the carrier-adjusting devices and the relative arrangement of such devices with the straw-carrier is the same in the arrangement of said carrier shown in Fig. 6 as in the arrangement shown in the other figures.

It will be understood that my straw-carrier may be geared with and driven by any suitable shaft of the thrasher. It will also be understood that instead of using the wheel I, as is preferred, the shaft H may be turned by a wrench or other expedient without involving a departure from my invention.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. The combination of a thrasher, a straw-carrier, and means for pivotally and adjustably supporting the latter, consisting of a bearing bar removably attached to the frame of the thrasher, a ratchet fast to one end of said bar, a shaft passing through and supported by said bar, a pawl carried by said shaft and arranged to engage the ratchet on the bearing-bar, and bars keyed to said shaft and arranged to adjustably support the carrier-frame, substantially as shown.

2. The combination of a thrasher and straw-carrier with a removable bar, the eyes for supporting the same, a shaft having bearings in said bar, the ratchet and pawl, supporting-bars carried by said shaft and arranged to engage the carrier, removable bars supporting the carrier driving-shaft, and means for imparting motion to said shaft, all arranged and operating substantially as shown and described.

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

HENRY THOMAN.

Witnesses:

DAN BABETH,
W. STAHL.