

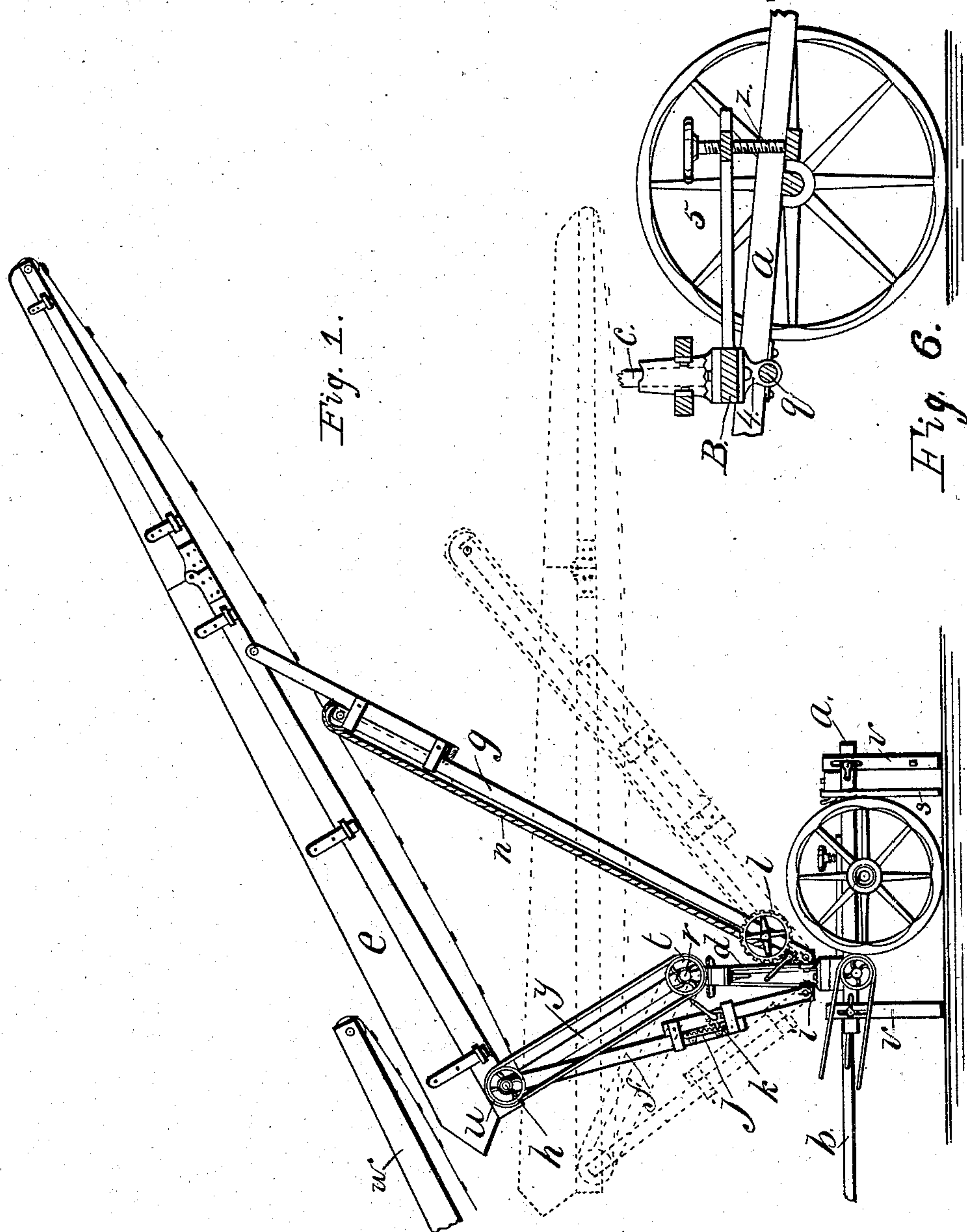
(No Model.)

2 Sheets—Sheet 1.

M. T. & A. B. REEVES.
STRAW STACKER.

No. 284,234.

Patented Sept. 4, 1883.



WITNESSES:

E. E. Sickler.
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INVENTORS:

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(No Model.)

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Fig. 4.

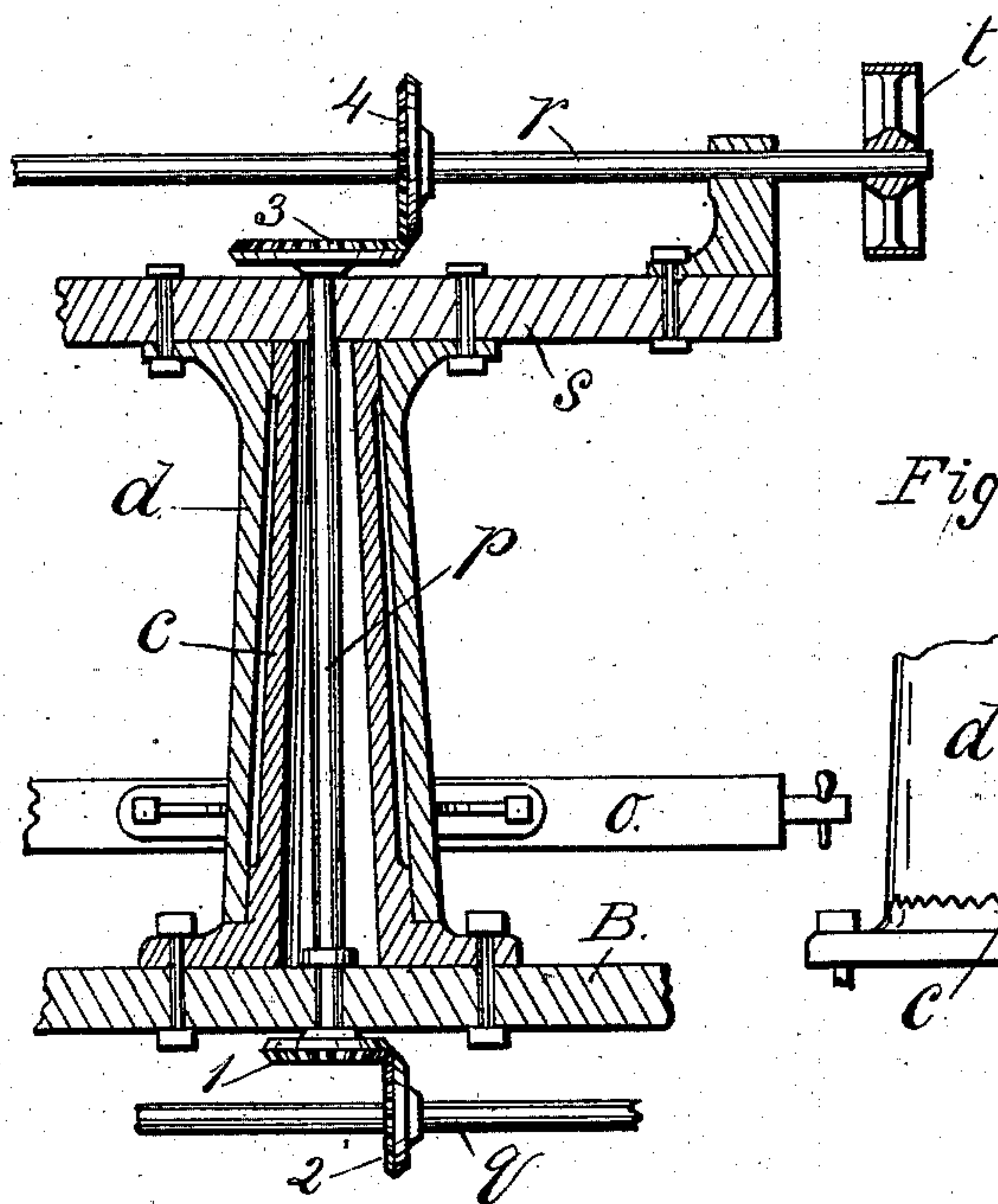


Fig. 5.

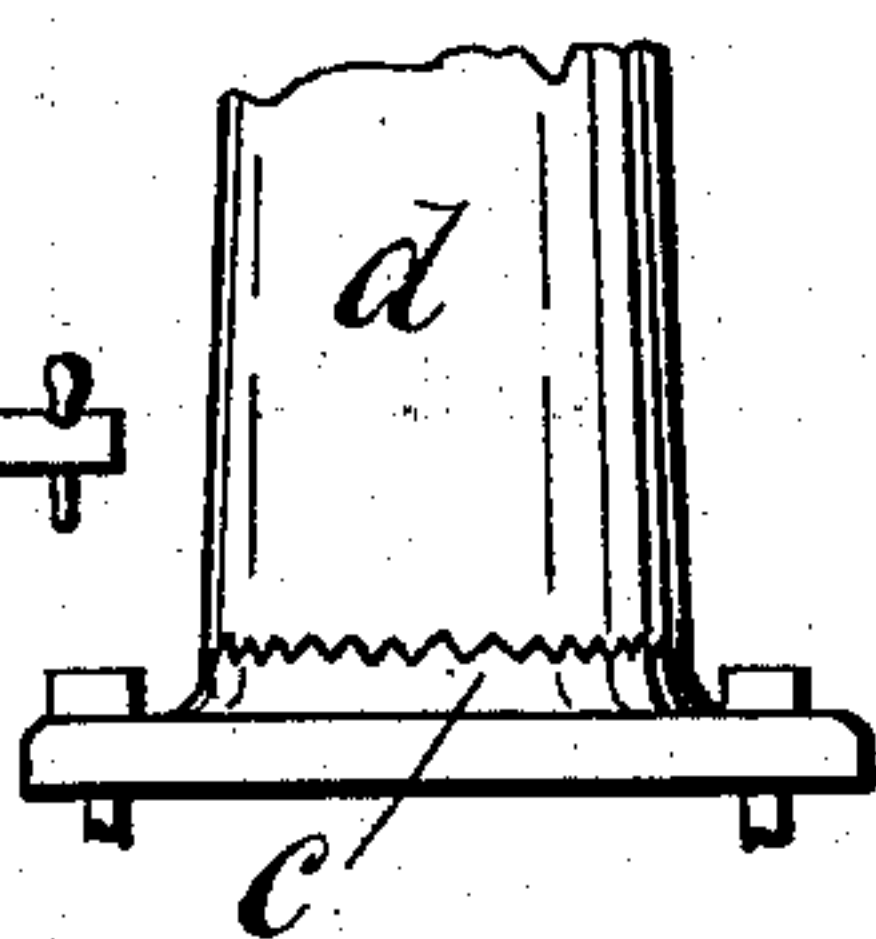


Fig. 2.

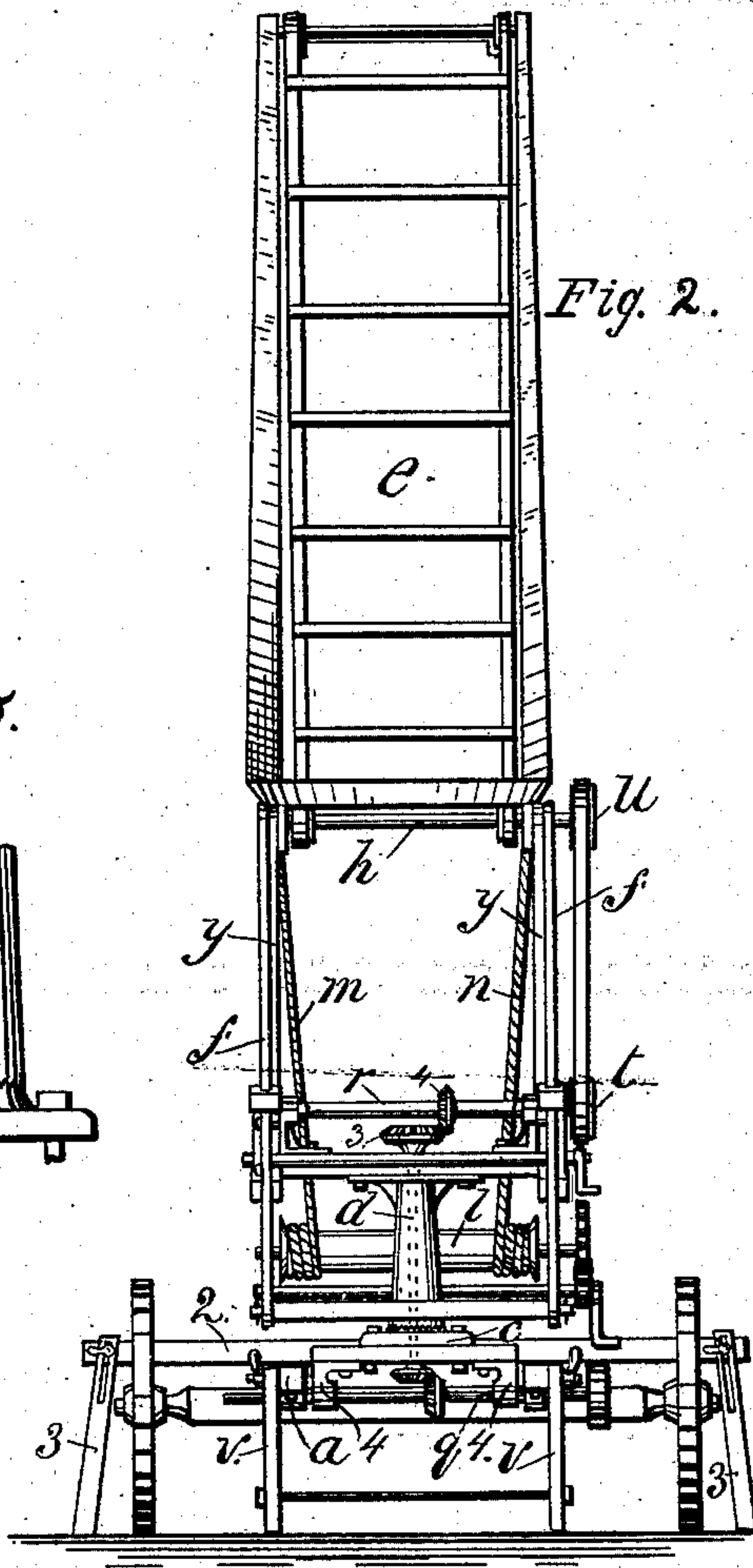
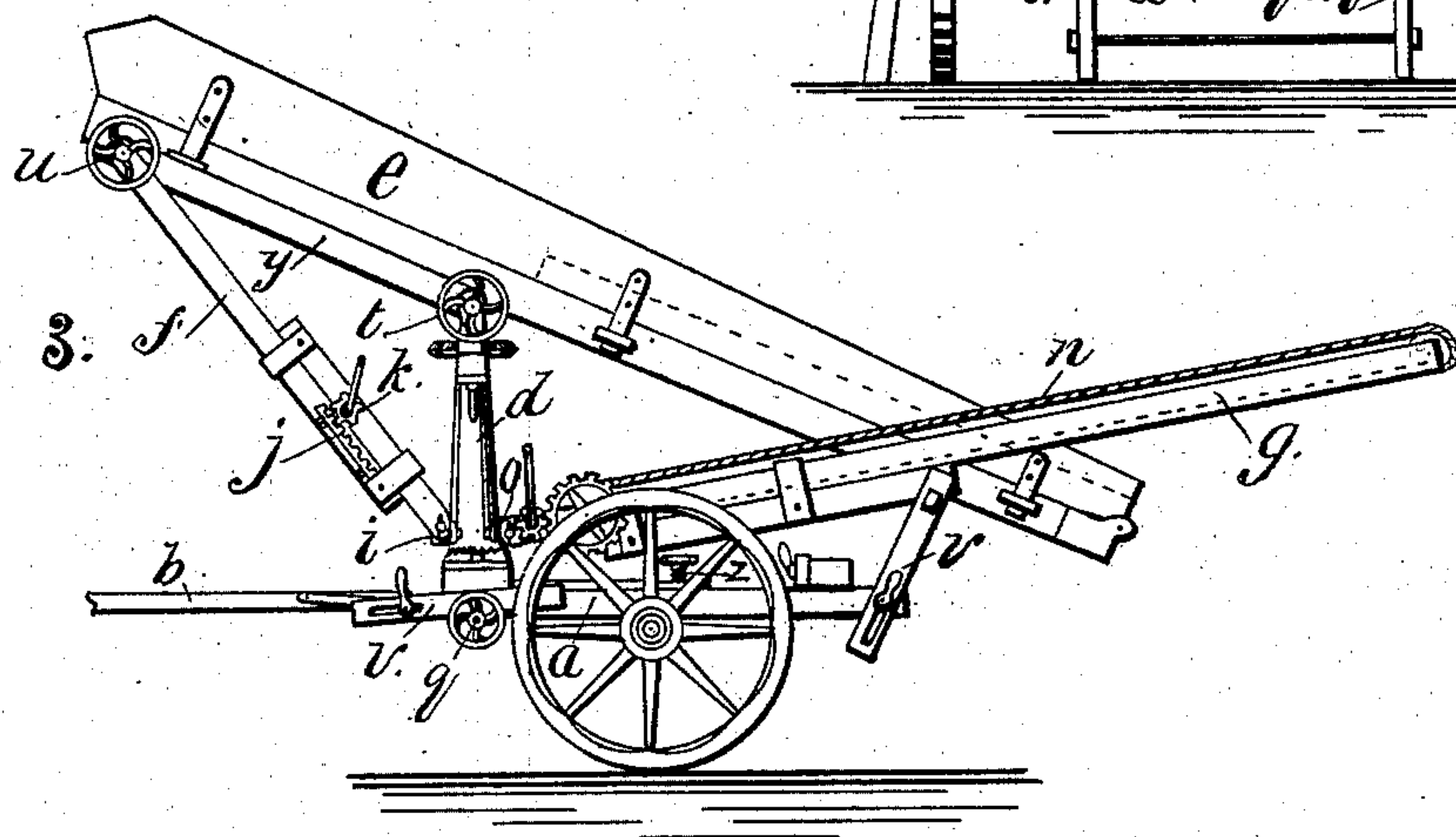


Fig. 3.



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UNITED STATES PATENT OFFICE.

MARSHAL T. REEVES AND ALFRED B. REEVES, OF COLUMBUS, INDIANA.

STRAW-STACKER.

SPECIFICATION forming part of Letters Patent No. 284,234, dated September 4, 1883.

Application filed April 9, 1883. (No model.)

To all whom it may concern:

Be it known that we, MARSHAL T. REEVES and ALFRED B. REEVES, citizens of the United States, residing at Columbus, in the county of Bartholomew and State of Indiana, have invented certain Improvements in Straw-Stackers, of which the following is a specification, having reference to the accompanying drawings.

Our invention relates to improvements in that class of straw-stackers which receive the straw from a thrashing-machine, and in which a straw-carrier swings horizontally about a fixed center and distributes the straw on the ground over a semicircular area.

The objects of our improvements are, first, to provide an improved means for connecting the straw-carrier with and mounting it upon a truck-frame provided with carrying-wheels, whereby said straw-carrier may be wholly supported by said truck and free to turn thereon about a central pivot secured thereto, and be well adapted to fold, without separation of its parts, into a compact form thereon for transportation; secondly, to provide an improved means for connecting the straw-carrier with its turning-support, whereby either or both ends of the straw-carrier may be elevated or depressed at the will of the operator, and whereby the straw-carrier may be thrown forward as it is elevated, so that the discharge end will remain nearly vertically over the center of the stack at any elevation and the driving-shaft of the straw-carrier move equidistant from the mechanism for conveying motion from the thrasher to the straw-carrier, as hereinafter more fully explained. These objects we obtain by means of the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation in position for working. Fig. 2 is a rear elevation of the same. Fig. 3 is a side elevation when folded for removal. Fig. 4 is an enlarged vertical section of the pivot and turning-support, showing also the driving mechanism. Fig. 5 is an enlarged partial elevation of the base of the turning-support. Fig. 6 is an enlarged partial elevation.

Like letters indicate the same parts in all the views.

a is a rectangular frame mounted on carry-

ing-wheels, and adapted to be drawn by the tongue or draft-pole *b*.

c is a hollow cylindrical vertical spindle, bolted securely to a cross-timber, *B*, resting on frame *a*.

d is a hollow pillar, adapted to slip over and turn upon spindle *c*.

e is the straw-carrier, the term being used, wherever found in this specification, to designate the conveyer-trough, the conveyer-belt traversing it, and the pulleys and shafts on which said belt is placed. The straw-carrier is attached to and supported above the hollow pillar *d* by means of two pairs of extensible braces, *ff* and *gg*, braces *ff* supporting its receiving end, and braces *g* supporting its discharging end. Braces *ff* are each formed of two pieces, one sliding upon the other, one piece being pivoted on the driving-shaft *h* of the straw-carrier and the other pivoted to the end of a cross-bar, *i*, which is firmly secured to pillar *d*, near its base. The relative position to each other of the pieces forming braces *ff* is controlled and adjusted by means of rack *j* and pinion *k*. Braces *gg* are also each formed of two pieces, one sliding upon the other, their relative position being adjusted and controlled by means of a windlass, *l*, and ropes *mn*. The upper ends of braces *gg* are pivoted to the straw-carrier, one on each side, near the outer or discharge end of the first section, and the lower ends are pivoted to the ends of a cross-bar, *o*, firmly secured to pillar *d*, near its base, and opposite to cross-bar *i*.

Motion is imparted to the conveyer-belt by the following means: Vertical shaft *p*, passing through the center of spindle *c*, is connected by a pair of bevel-wheels, 1 2, with a shaft, *q*, mounted on base-frame *a* and driven by a belt from the thrasher. A pair of bevel-gears, 3 4, connects shaft *p* with a horizontal shaft, *r*, mounted in bearings on a timber, *s*, firmly secured to and across the top of pillar *d*, parallel with bars *i* and *o*. Shaft *r* carries a pulley, *t*, which is connected by a belt with pulley *u* on shaft *h*. For the purpose of giving firmness to the supporting-base during the operation of the stacker, a cross-timber, 2, is secured across frame *a*, and slotted supports *v v* and 3 3 are secured adjustably on the sides of frame *a* and cross-timber 2.

In this class of straw-stackers, as heretofore

constructed, the shaft *h*, forming a pivot-bearing for the receiving end of the straw-carrier, has occupied a fixed position, and the raising of the discharge end of the carrier as the height of the stack increased has had the effect of considerably shortening the distance to which the straw was carried, and thus causing the straw to fall short of the center of the stack.

The operation of our stacker is as follows:
 10 When moving from place to place, the parts are drawn together, as shown in Fig. 3. When prepared for work, the front end of the tongue *b* is secured to the rear end of the thrasher, thus securing the stacker at a fixed distance from it. By turning windlass *l* and winding thereon the ropes *m n* the braces *g g* (there being one on each side of the machine) are extended until the straw-carrier assumes a horizontal position, as shown by dotted lines in Fig. 1. The straw from the thrasher *w* falls into the straw-carrier *e*, the conveyer-belt of which is driven, as before explained, by power conveyed from the thrasher through shafts *q*, *p*, *r*, and *h*, and the straw is dropped from the outer end of the straw-carrier, being distributed over a semicircular area by swinging the carrier, its supporting-braces, and pillar *d* around the vertical hollow pivot *c*. To prevent the carrier from swinging too easily the base of pillar *d* and shoulder of pivot *c* may be corrugated or serrated, as shown in Fig. 5. As the stack increases in height the outer end of the carrier is raised by the further extension of braces *g g*, and the receiving end of the carrier is also raised by extending braces *f f*. Shafts *r* and *h* are connected and held at a constant distance apart at all times by a brace, *y*, at each end, one being applied on each side of the conveyer-trough, and both adapted to turn at each end on the shafts. When the discharging end of the carrier is raised by the extension of braces *g g*, the carrier swinging on shaft *h* as a center, the point of discharge is drawn toward the thrasher and away from the stack; but when braces *f f* are extended that end of the carrier to which they are attached is forced by the braces *y y* to move in a path concentric with shaft *r*, and the carrier is thus moved longitudinally toward the stack, while the pivotal point about which it turns horizontally remains stationary, and by the combined action of braces *g*, *y*, and *f* the point of discharge is elevated and maintained vertically over the stack.

For the purpose of adjusting pivot *c* in a true vertical position after the stacker has been set in the place where it is to work, we connect the timber *B*, on which said pivot is bolted, to the base-frame *a* by means of brackets *4 4*, through which we pass shaft *q*, which passes also through bearings on the frame *a*. An arm, *5*, Fig. 6, is secured at one end to timber *B*, and a set-screw, *z*, passes through the other

end and rests on a cross-timber or frame, *a*. When the stacker sets on unlevel ground, by turning screw *z* the pivot *c*, on which the stacker turns, is adjusted to a true vertical position.

We claim as our invention—

1. In a straw-stacker, the combination of a base-frame, a vertical hollow spindle secured thereto, a hollow pillar adapted to fit over and turn upon said spindle, a straw-carrier consisting of a conveyer-trough and a conveyer-belt, means for driving said belt in different positions, and means for adjustably connecting said straw-carrier with and supporting it upon said hollow pillar, substantially as shown and described.

2. In a straw-stacker, the combination, with a fixed base-frame, a fixed vertical pivot on said frame, a straw-carrier, and a support for said straw-carrier adapted to turn about said pivot, of means for elevating said straw-carrier, and thereby moving it longitudinally, substantially as and for the purpose set forth.

3. In a straw-stacker, the combination, with a fixed base-frame, a fixed pivot thereon, and a straw-carrier mounted on said pivot, of extensible braces attached to each end of said straw-carrier and adapted to elevate the same and to turn therewith about said fixed pivot, substantially as set forth.

4. The combination, with a straw-carrier, of extensible braces *f f* and non-extensible braces *y y*, all pivoted to a common support and to the straw-carrier, substantially as and for the purpose set forth.

5. The combination, with a straw-carrier, of extensible braces *f f* and *g g* and non-extensible braces *y y*, all pivoted to a common support and to the straw-carrier, substantially as and for the purpose set forth.

6. In a straw-stacker, frame *a*, hollow spindle *c*, pillar *d*, cross-bars *i* and *o*, timber *s*, shaft *r*, braces *f g y*, and straw-carrier *e*, all combined, substantially as set forth.

7. The combination, in a straw-stacker, of a base-frame, a vertical pivot adjustably secured thereto, as shown and described, a straw-carrier, a support adapted to turn about said pivot, and means for adjusting said pivot in a true vertical position, substantially as set forth.

8. The combination, with a straw-carrier, a turning-support therefor, a pivot, and a base-frame mounted on carrying-wheels, of cross-timber *2* and supports *3 3*, whereby the supporting-base is extended transversely, substantially as shown and described.

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Witnesses:

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