

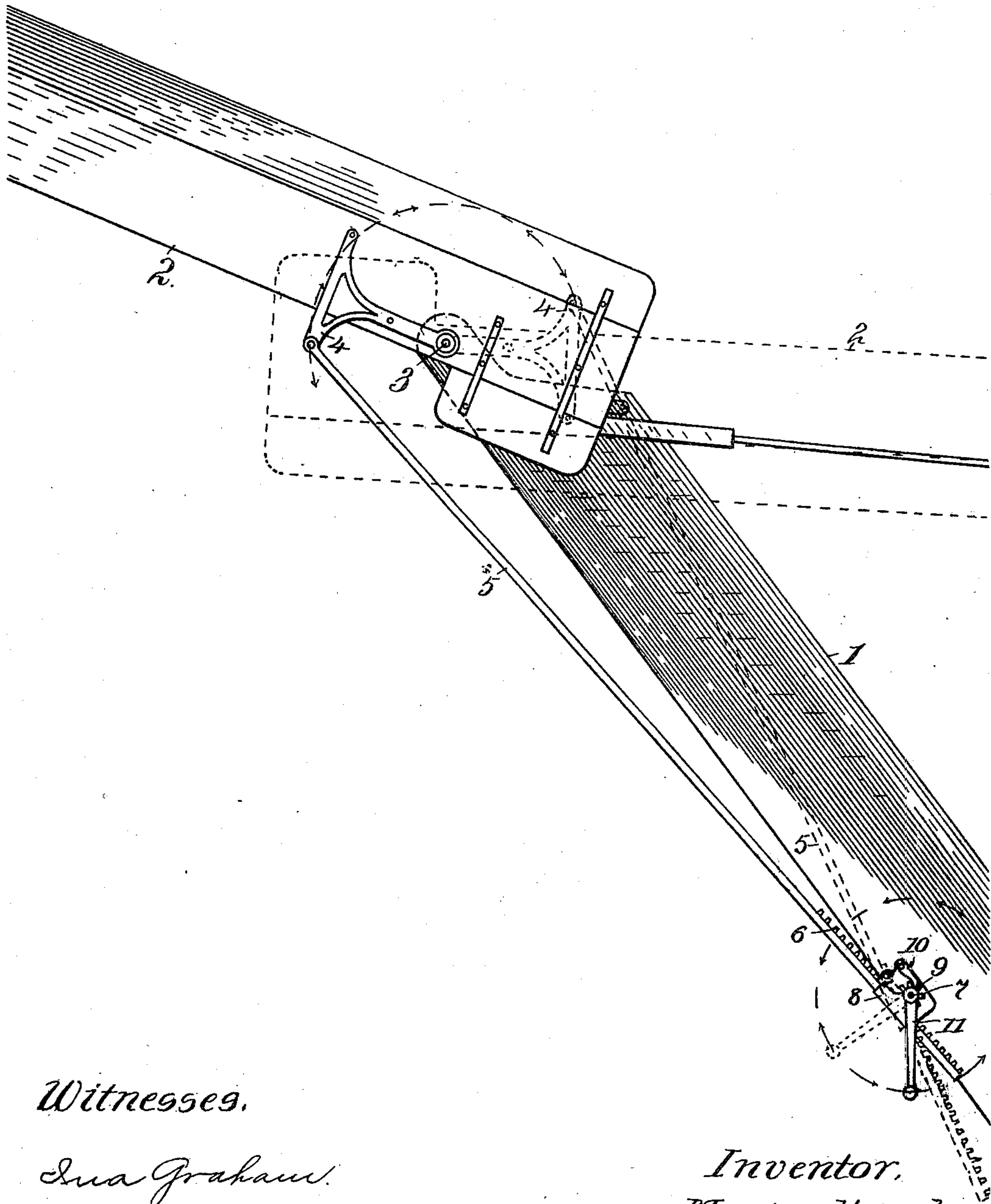
No. 679,227.

Patented July 23, 1901.

M. HEINEKE.
STRAW STACKER.

(Application filed Oct. 22, 1900.)

(No Model.)



Witnesses.

Lina Graham.

Mrs. Graham.

Inventor.
Martin Heineke.
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UNITED STATES PATENT OFFICE.

MARTIN HEINEKE, OF SPRINGFIELD, ILLINOIS.

STRAW-STACKER.

SPECIFICATION forming part of Letters Patent No. 679,227, dated July 23, 1901.

Application filed October 22, 1900. Serial No. 33,991. (No model.)

To all whom it may concern:

Be it known that I, MARTIN HEINEKE, of the city of Springfield, county of Sangamon, and State of Illinois, have invented certain new and useful Improvements in Straw-Stackers, of which the following is a specification.

This invention relates to stackers in which a vertically-swingable section is hinged to a relatively stationary section; and it resides in means for shifting the vertically-swingable section and controlling the positions thereof. It is exemplified in the structure hereinafter described, and it is defined in the appended claim.

In the drawings forming part of this specification a part of a stacker is shown in side elevation.

This invention has nothing to do with details of construction of either of the sections of the stacker-frame or with the elevating-belts thereof, except to provide means for swinging one section vertically on the other section and to hold the swinging section at any desired point of its swing. In the development of stackers a point has been reached at which the desirability of swinging one section vertically on the extended end of another section has been established, and means have been provided by which this result has been attained. Raddles or slatted belts have carried the straw up one section and off the other. The construction of such raddles and the frames therefor are well understood, and so I have shown no more of a stacker than is needed to illustrate the construction and mode of operation of my shifting and controlling mechanism for the swingable section of the stacker.

The upper end of a stacker-section is shown at 1. At 2 is shown a section pivoted at its inner end to the upper end of section 1 on a pivot-shaft 3 or other suitable hinge. The details of construction of the two sections are immaterial to this invention, except as hereinafter stated. An arm 4, attached to a side of the swingable section 2, has a laterally-extending pin that forms a bearing for an end of a push-rod 5 and such pin is off the pivot 3 of the swingable section. The opposite end of the push-rod is formed into or provided with a toothed rack 6. A shaft 7 is

journalled on a side of the stacker-section 1 or on some other relatively-fixed part of the stacker. A saddle-bracket 8 is swung loosely onto shaft 7. The rack of the push-rod is carried slidably in the saddle-bracket, with its teeth presented toward the shaft 7, and a gear-wheel 9, fixed on shaft 7, meshes with the teeth of the rack. A crank-arm 11, fixed onto an end of the shaft 7, provides means for turning the shaft, and a detent 10 engages the teeth of gear-wheel 9 and prevents motion of the shaft in one direction.

In building a stack the discharge end of section 2 is lowered to its lowest position, and as the straw accumulates the crank-arm 11 is turned so as to impart upward push to the rod 5 through shaft 7, wheel 9, and rack 6, and as the gear-wheel turns in imparting such upward thrust the detent drops behind the teeth of the gear-wheel and holds the swinging section in its successive upward movements. As the section 2 approaches a vertical position the leverage of the push-rod is lessened and the resistance of gravity is correspondingly diminished, and when the stacker-section is straight up and down the pivot-pin of arm 4 is on a dead-center. This point is passed in practical operation, however, by accelerating the swing of section 1 just before the vertical line is reached and so gaining sufficient momentum to carry the pivot of the push-bar past the line of centers. As soon as the swingable section is past the vertical line, or even prior to that time, the detent 10 is swung out of engagement with the gear-wheel and the section is lowered into the position shown in dotted lines preparatory to transporting the machine. As the push-rod raises and lowers the swingable section the saddle-bracket 8 rocks on shaft 7 to permit the needed changes in the location of the rod.

The invention has particular reference to stackers permanently attached to threshers. The swingable section is laid over onto the thresher when in the position shown in dotted lines, and when it is desired to put the stacker into operation again the mode of procedure hereinbefore described is reversed.

I claim—

The combination with the vertically-swingable section of a stacker, of a push-rod pivot-

ally connected with such section off the pivot
thereof, a crank-shaft, a saddle-bracket hung
loosely on the crank-shaft and embracing the
push-rod, teeth on the push-rod presented
5 toward the crank-shaft and a gear-wheel fixed
onto the crank-shaft in mesh with the teeth
of the push-rod, substantially as set forth.

In testimony whereof I sign my name in the
presence of two subscribing witnesses.

MARTIN HEINEKE.

Witnesses:

WARREN E. LEWIS,
MAY JENKINS.