

No. 820,249.

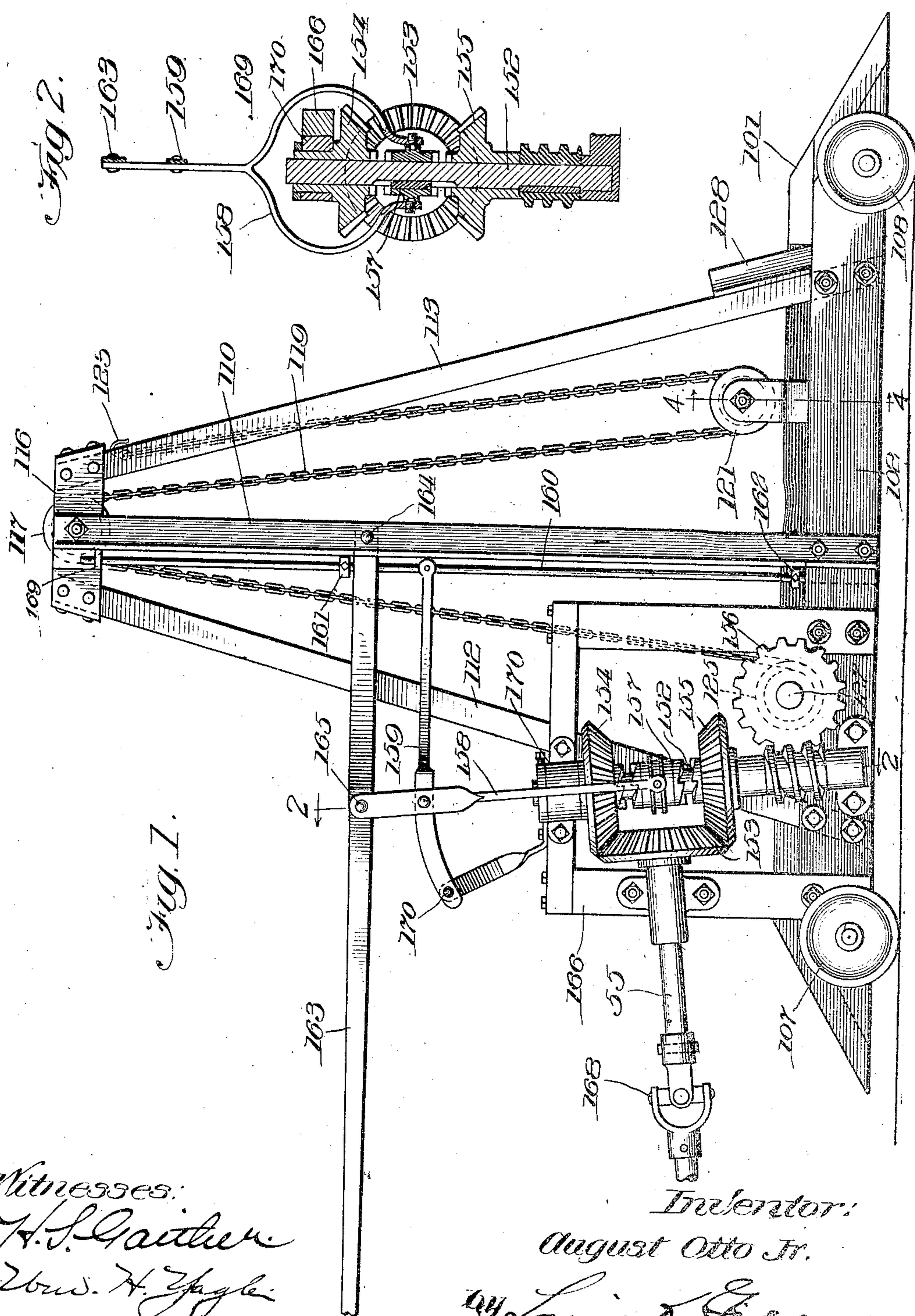
PATENTED MAY 8, 1906.

A. OTTO, JR.,

CORN ELEVATOR.

APPLICATION FILED DEC. 17, 1904

3 SLATS—SHEET 1.



Witnesses:

H. S. Gaither

Wm. H. Ziegler

Interior:

August Otto Jr.

144 Leviathan Co.
1114

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3 SHEETS—SHEET 2.

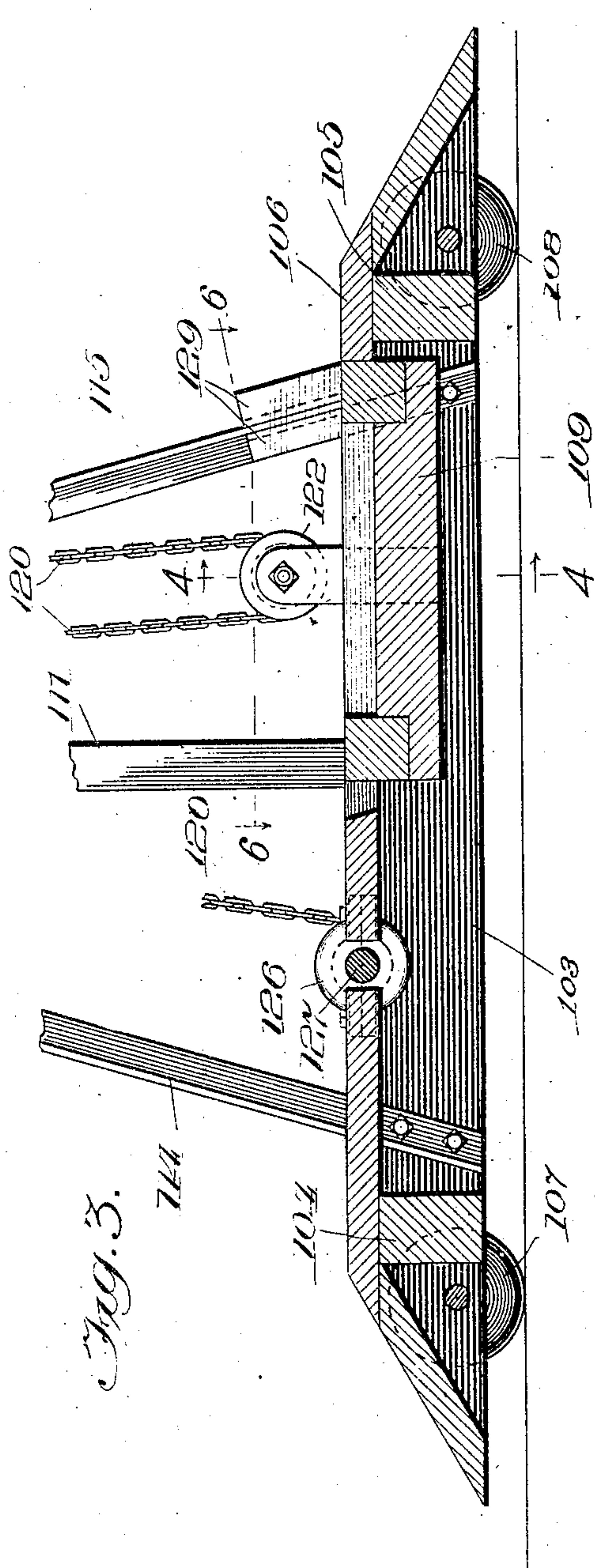


Fig. 3.

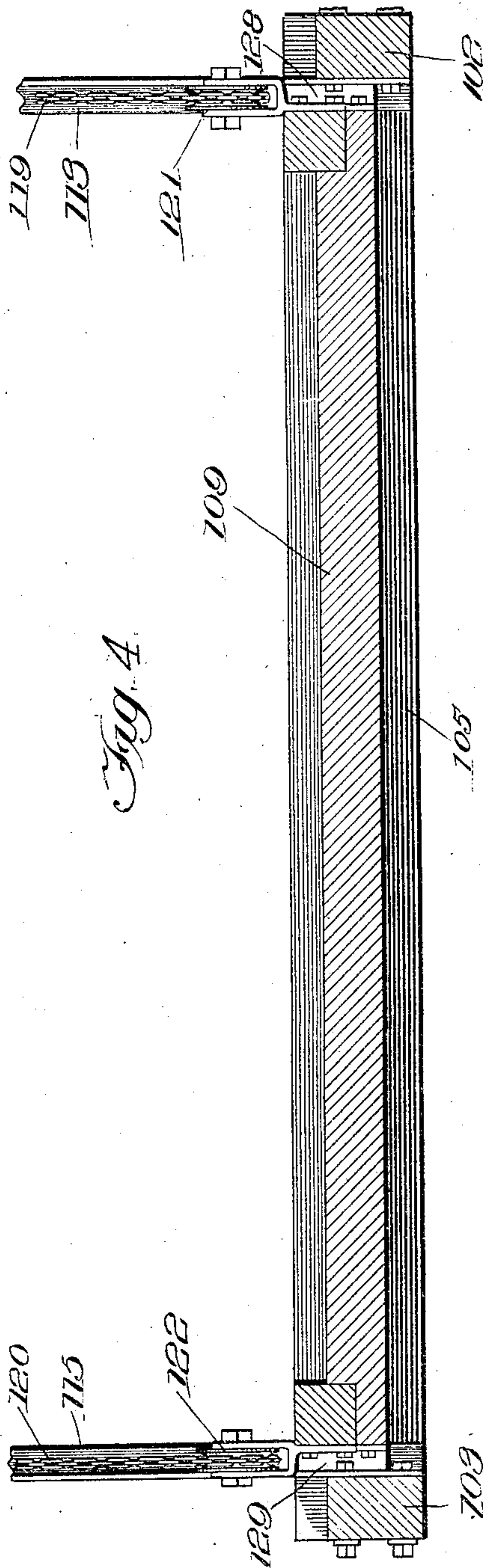


Fig. 4.

Witnesses:

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J. W. N. Ziegler

Inventor:

August Otto Jr.

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att'y

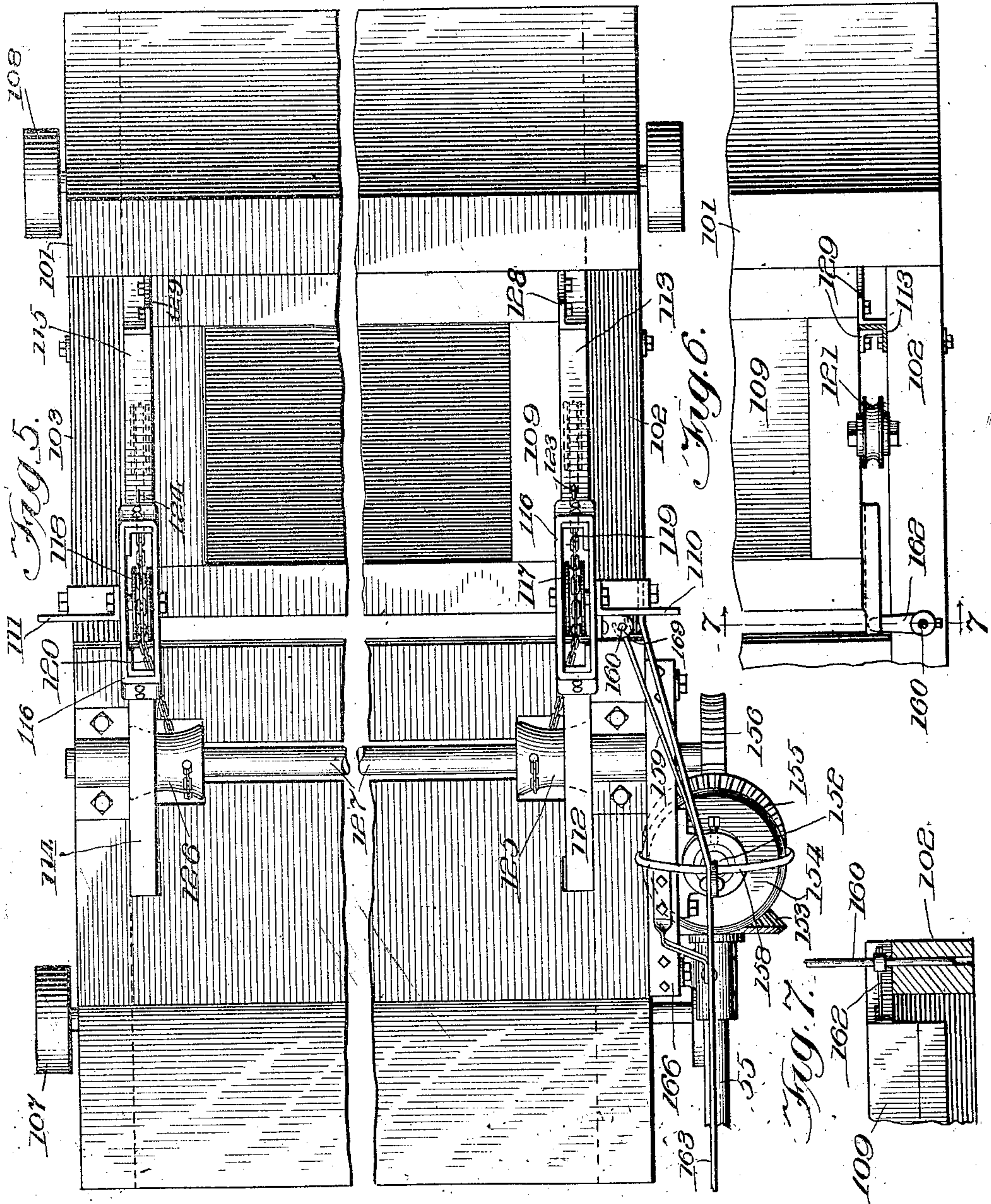
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3 SHEETS—SHEET 3.



Witnesses:
H. S. Gaither
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Inventor.
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UNITED STATES PATENT OFFICE.

AUGUST OTTO, JR., OF SANDWICH, ILLINOIS.

CORN-ELEVATOR.

No. 820,249.

Specification of Letters Patent.

Patented May 8, 1906.

Application filed December 17, 1904. Serial No. 237,318.

To all whom it may concern:

Be it known that I, AUGUST OTTO, Jr., a citizen of the United States, and a resident of Sandwich, county of De Kalb, and State of Illinois, have invented certain new and useful Improvements in Corn-Elevators, of which the following is a specification, and which are illustrated in the accompanying drawings, forming a part thereof.

The invention relates to a wagon-dumping device adapted particularly for use in connection with elevators for receiving grain directly from the wagon-box and conveying it to a crib or other receptacle.

The invention contemplates means for tilting a wagon so that it will discharge its contents from the rear end of its box; and it consists in means for raising the front end of the wagon, and more specifically in means for controlling the elevating mechanism.

The invention consists in the construction and arrangement of parts to be hereinafter described, and illustrated in the accompanying drawings, in which—

Figure 1 is a detail end elevation. Fig. 2 is a sectional view on the line 2 2 of Fig. 1. Fig. 3 is a central vertical section. Fig. 4 is a vertical cross-section on the line 4 4 of Figs. 1 and 3. Fig. 5 is a detail plan view of the device. Fig. 6 is a detail section on the line 6 6 of Fig. 3, and Fig. 7 is a section on the line 7 7 of Fig. 6.

For receiving the wagon to be unloaded a platform 101 is provided, comprising side rails 102 and 103 and the cross members 104 105, covered by planking 106, the whole being mounted on truck-wheels 107 and 108. Within an opening in the covering of this platform rests a movable frame 109, designed to receive the front wheels of the wagon.

For supporting and raising this movable platform a framework is provided, including uprights 110 and 111 and diagonals 112, 113, 114, and 115, rising from the platform 101 and joined above by a rectangular inclosure 116, in which are journaled sheaves 117 and 118. Over these sheaves pass chains 119 and 120, which are looped down at one side to receive sheaves 121 and 122, attached to the movable platform 109, the ends of the chains reaching upwardly therefrom and being secured to the framework, as indicated at 123 and 124. The free ends of the chains 119 and 120 pass downwardly from the pulleys 117 and 118 onto drums 125 and 126, mount-

ed on a shaft 127, journaled in the side members of the platform 101.

Guide-brackets 128 and 129 are mounted on the movable platform 109 to bear against the diagonal braces 113 and 115, respectively, as this platform is raised. Preferably the pitch of these diagonals corresponds roughly to the chord of an arc through which the front wheels of a farm-wagon of usual length will turn when the wagon is being tilted about the rear axle as a center. In the drawings the diagonals are shown as angle-bars with the guide-brackets embracing one of the flanges.

Power is supplied from any convenient source, such as the common farm traction-engine, and is preferably applied to the shaft 55. A worm-shaft 152, suitably mounted on a frame 166, secured to the base of the platform 101 and coöperating with a worm-wheel 156, attached to the shaft 127, is employed for transmitting power to the shaft 127.

Two bevel-gears 154 and 155, turning loosely on the worm-shaft, are driven in opposite directions from a gear 153 on the end of the shaft 55. The rotation of either of the gears 154 or 155 may be imparted to the worm-shaft by means of a clutch 157, splined upon it and actuated by a yoke 158, having a swiveled connection with the clutch. This yoke is operated by means of a hand-lever 163, pivoted to the upright 110 at 164 and to the yoke at 165 and extending forwardly therefrom, so as to be easily reached by an attendant standing near the foot of the conveyor.

Means are provided for automatically disengaging the clutch 157 when the movable platform 109 has reached the end of a predetermined range of movement. For this purpose a shipper-rod 160, the base of which rests in an aperture in one of the side members 102 of the platform 101, the upper end being supported and guided by a bracket 169, secured to the frame 116, is operatively connected to the yoke 158 by means of a lever 159, fulcrumed at 170. Stops 161 and 162, reaching into the path of the movable platform 109, are adjustably secured to the shipper-rod 160.

The operation of the device is as follows: The front wheels of the wagon having been placed upon the platform 106, the hand-lever 163 is operated to throw the clutch 157 into engagement with one of the pinions to rotate

the drum and raise the platform. When the latter encounters the stop 161, it moves the rod 160 sufficiently to disengage the clutch, and thus stop the drum. When it is desired to remove the wagon from the platform, the attendant again actuates the clutch by means of the hand-lever 163 in order to rotate the drum in the opposite direction, and as the platform reaches the limit of its downward movement it encounters the stop 162, and thus automatically disengages the clutch.

I claim as my invention—

1. In a wagon-dump, in combination, a suitable frame, a traveling platform, a hoisting-drum, flexible connection between the drum and platform, a power-shaft, operative connection between the shaft and the drum, a reversing-clutch interposed in such connection, a reciprocable rod, adjustable stops carried by the rod and projecting into the path of an appurtenance of the platform, a shipper-rod for controlling the clutch, a lever fulcrumed on an appurtenance of the frame and pivotally attached to the reciprocable

rod and being operatively engaged with the shipper-rod, and a hand-lever fulcrumed on an appurtenance of the frame and being operatively connected with the shipper-rod.

2. In a wagon-dump, in combination, a suitable frame, a traveling platform, a hoisting-drum, flexible connection between the drum and platform, a power-shaft, operative connection between the shaft and the drum, a reversing-clutch interposed in such connection, a reciprocable rod, stops carried by the rod and projecting into the path of an appurtenance of the platform, a shipper-rod for controlling the clutch, a lever fulcrumed on an appurtenance of the frame and pivotally attached to the reciprocable rod and being operatively engaged with the shipper-rod, and a hand-lever fulcrumed on an appurtenance of the frame and being operatively connected with the shipper-rod.

AUGUST OTTO, JR.

Witnesses:

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