

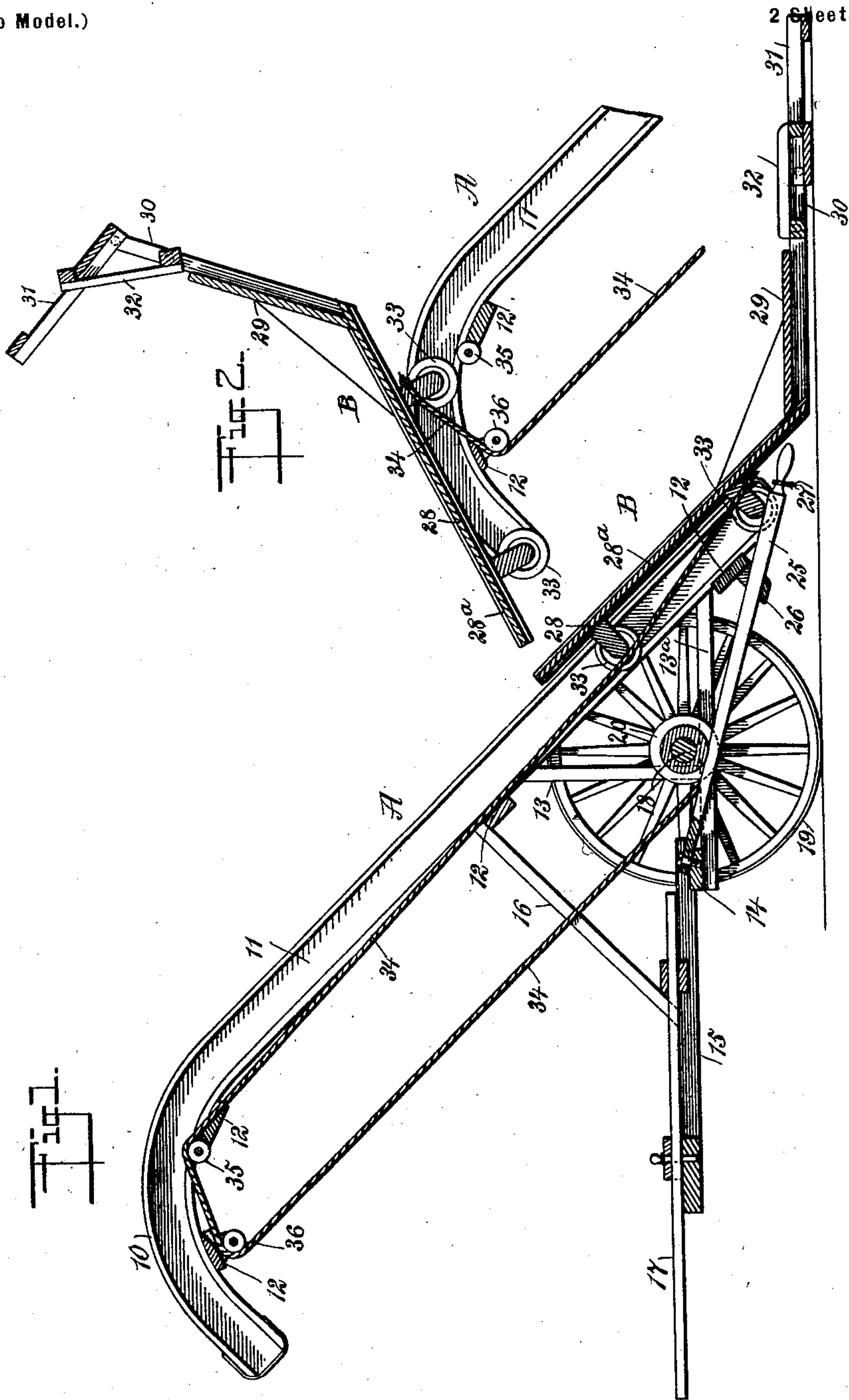
No. 701,645.

Patented June 3, 1902.

W. A. TEA, Dec'd.
M. J. TEA, Administratrix.
DEVICE FOR LOADING CORN SHOCKS.
(Application filed Aug. 2, 1901.)

(No Model.)

2 Sheets—Sheet 1.



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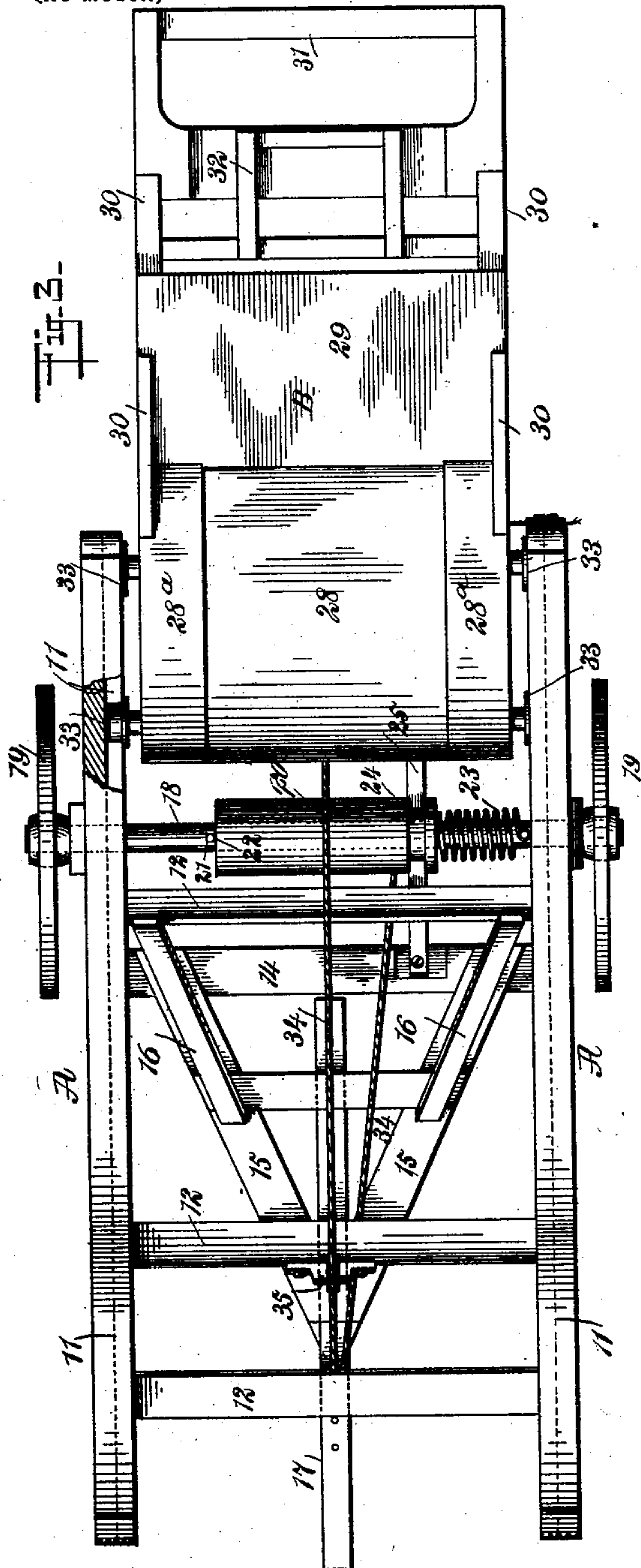
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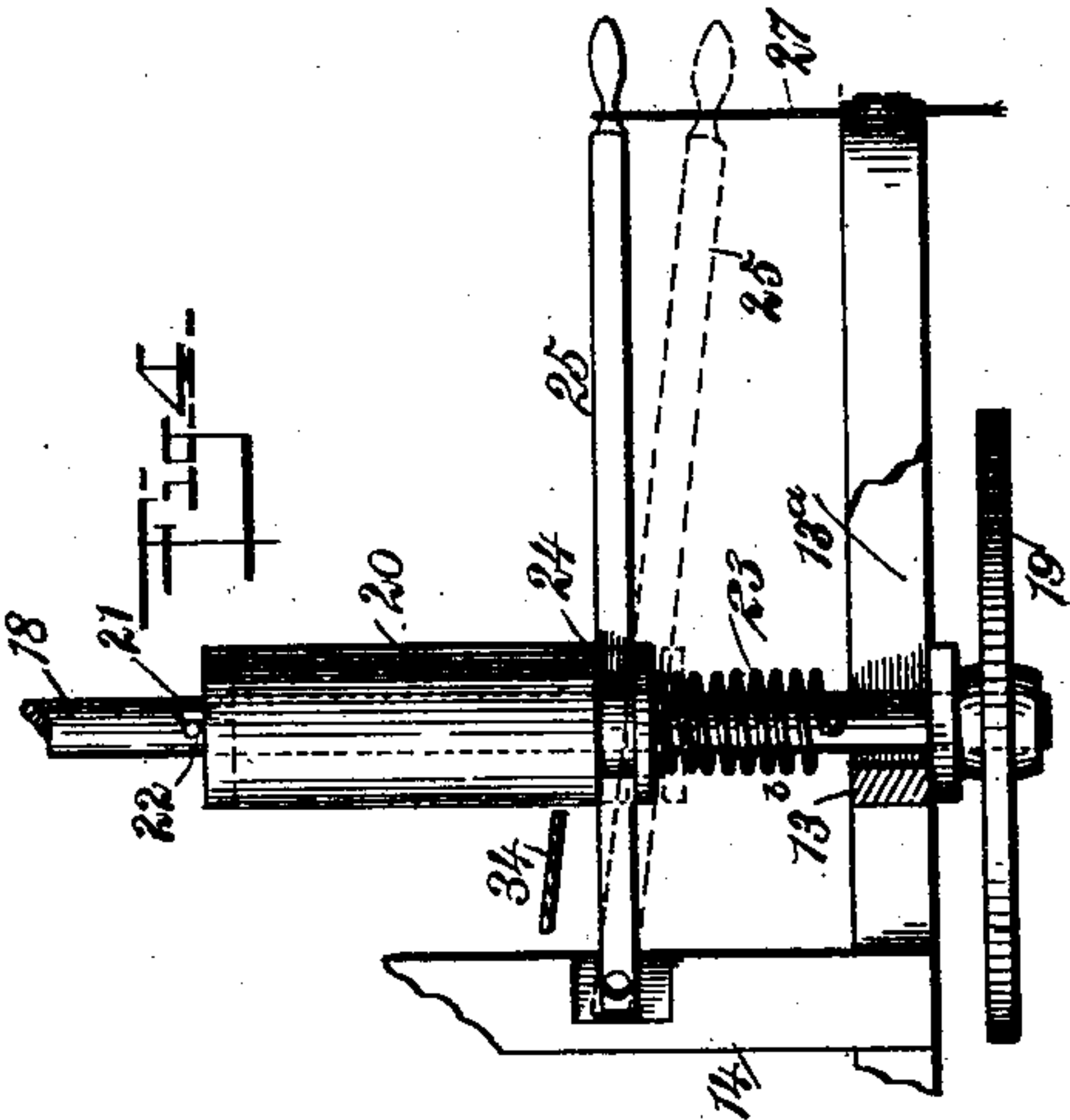
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2 Sheets—Sheet 2.



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UNITED STATES PATENT OFFICE.

WILLIAM A. TEA, OF BELLEVUE, OHIO; MARY J. TEA ADMINISTRATRIX
OF SAID WILLIAM A. TEA, DECEASED.

DEVICE FOR LOADING CORN-SHOCKS.

SPECIFICATION forming part of Letters Patent No. 701,645, dated June 3, 1902.

Application filed August 2, 1901. Serial No. 70,635. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM A. TEA, a citizen of the United States, and a resident of Bellevue, in the county of Huron and State of Ohio, have invented a new and Improved Device for Loading Corn-Shocks, of which the following is a full, clear, and exact description.

The purpose of the invention is to provide a wheel-supported device adapted for attachment to the rear of an ordinary farm-wagon for the purpose of automatically carrying the shocks from the ground to the wagon-bed and delivering them therein, thus facilitating the gathering of shocks adapted to be transported to husking and shredding machines.

A further purpose of the invention is to provide means for securing automatic movement in an upward and downward direction of the shock-conveyer car upon an inclined frame which forms a part of the loading mechanism, means being provided for throwing the car-actuating mechanism into and out of gear with the axle of the device.

A further purpose of the invention is to so construct the car that its lower or receiving portion will lie flat upon the ground when in receiving position, enabling a shock to be readily placed thereon and so that a member of such receiving portion may be locked in a position to prevent the shock from leaving a car while being elevated, which closing or barrier section is released when the shock is discharged into the wagon.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a central longitudinal section through the device, the car being shown in position to receive a shock. Fig. 2 is a similar section of the upper portion of the device, illustrating the car in dumping position. Fig. 3 is a plan view of the device, the parts being in the position shown in Fig. 1; and Fig. 4 is a detail plan view of the windlass and means employed for shifting the same.

The main frame A of the device is inclined from the top downward and rearward and consists of two side pieces, the upper ends 10 of which are curved in a downward and forward direction to a greater or less extent, and in the inner face of each side section of the frame A a channel or guideway 11 is produced, extending from end to end of each side section; but the channels are closed at the extremities of the side sections, as is clearly shown in Fig. 1. This frame is practically completed by the addition of cross-bars 12 in any desired number extending from one side section to the other, at the bottom portions thereof.

Hangers 13 are carried down from the side sections of the frame A at a point near their centers, and these hangers are secured to the side members of a frame 13^a, the rear portions of the side members of the said frame being attached to the lower portions of the side bars, as is shown in Fig. 3. This frame 13^a, which is horizontal, is provided with a forward cross-bar 14, as is shown in Figs. 1 and 3.

An auxiliary triangular frame 15, pointed at its forward end, is secured at its rear portion to the forward cross-bar 14 of the main frame 13^a, and braces 16 are carried from the side sections of the main inclined frame A to an engagement with the auxiliary draft-frame 15, since both of the frames 13^a and 15 are draft-frames, and a reach 17 is adjustably attached to the auxiliary draft-frame 15, so that the device may be attached to the rear of any form of wagon into which the shocks are to be dumped. The frame 13^a and the frame 15, heretofore described, practically form the draft-frame of the machine, and with this draft-frame is associated the draft tongue or pole 17, the latter being adjustably attached to the member 15 of the draft-frame. This adjustable connection may be obtained in any way; but as shown by Figs. 1 and 3 the draft-pole or reach 17 is provided with a series of apertures, through either of which may be passed the pin shown by Fig. 1 in order to adjustably fasten said pole or reach to the member 15 of the draft-frame.

An axle 18 is journaled in the bearings 13^b where the hangers 13 connect with the rear

draft-frame 13^a, and supporting-wheels 19 are secured to the ends of the said axle. At a point between the ends of the axle 18 a windlass 20 in the form of a drum is mounted loosely on the axle 18, and this windlass is adapted to be clutched to and driven from the axle by causing a pin 21, carried from one end of the windlass, to engage with pins 22, carried by the axle, as is shown in Fig. 3. Normally the pins 21 and 22 are in engagement, so that the windlass or drum is compelled to turn with the axle, and the pins are held in such engagement by a spring 23, coiled around the axle 18 and secured at one end to the axle, the opposite end of the spring having bearing against an end of the drum 20.

Near that end of the drum 20 where engagement is made with the spring 23 an annular groove 24 is produced, and this groove receives a shifting-lever 25, fulcrumed at its forward end upon the cross-bar 14 of the rear draft-frame 13^a, as is shown in Figs. 1, 3, and 4. This lever 25 is passed through a guide 26, secured to a lower cross-bar 12 of main inclined frame A, and terminates at its lower end in a handle, to which handle a rope or chain is attached, adapted to be carried to the driver of the wagon and guided to such point in any suitable or approved manner. Thus by drawing the shifting-lever 25 outward the drum 20 will turn freely on the shaft 18, and the platform, adapted to carry shocks, as hereinafter described, will be permitted to slide down the main frame A by gravity; but when the shifting lever 25 is released the spring 23 will again throw the drum 20 in locking engagement with the axle 18, and as the device advances the aforesaid platform will be carried up to the top of the main frame A to the dumping position (shown in Fig. 2) in a manner which will be shortly explained.

The platform B, above referred to, is practically an open car and consists of a forward body 28, which may or may not be provided with side sections 28^a, raised about to the level of its upperface, and a rear section 29, which is at an angle to the forward section 28, as is shown in Figs. 1 and 2. The side bars 30 of the lower section 29 of the car or platform B extend beyond the rear longitudinal edge of said section, and at the rear extremities of the extensions 30 of the side beams of the car a skeleton frame 31 is pivoted, adapted to be carried upward at an angle to the lower section 29 of the platform or car or to lie flat and in practically the same horizontal plane with the side bars of the said rear section, as is shown in Fig. 1. The skeleton frame 31 is adapted to prevent a shock placed on the car or platform from leaving the same while it travels up the inclined plane of the main frame A. This retaining rear section 31 of the car or platform is held in its upper position by means of a locking-frame 32, which is likewise pivoted between the extensions 30 of the side bars of the rear section 29

of the car or platform, as is shown in Figs. 1, 2, and 3. This locking-frame 32 is of skeleton construction, and its rear cross-bar is adapted for engagement with the bottom cross-bar of the retaining-frame 31, the upper edge of which lower cross-bar of the retaining-frame may be more or less beveled, as is indicated in Fig. 2.

The body or forward section 28 of the platform or car is provided at its sides with wheels 33, adapted to travel in the channels 11 of the side sections of the main frame. This forward section 28 of the platform or car is attached at its lower central portion to one end of a cable or chain 34. This cable or chain is carried up over guide rollers or pulleys 35 and 36, located at the upper bent portion of the main frame and about centrally between the side sections of the same. After the rope, chain, or cable has passed over the rollers 35 and 36 it is attached in any approved manner to the drum 20. Thus in operation the drum 20 being in locking engagement with the axle 18 and the car or platform being in its lower or receiving position (shown in Fig. 1) the shock may be thrown on the body portion of the car or platform and the retaining-frame 31 be carried to its upper or retaining position and held by the latch or locking frame 32. As the device is drawn forward under such conditions the drum 20 turns with the axle 18, and the hoist-rope 34 is consequently wound on the drum, and the car or platform is carried up to the top curved portion of the main frame, as shown in Fig. 2, where its load will slide down the main portion of the car or platform into the wagon, which the device follows. At the same time the shock on the platform reaching the upper end of the guideways 11 will cause the latch-frame 32 to be disengaged from the retaining-frame 31, permitting the latter to assume a position in the same horizontal plane with the bottom section of the car, and the burden of the weight of the car being at the rear of its center said car will automatically travel down the inclined plane of the main frame the moment the drum 20 is carried out of locking engagement with the axle 18 by the manipulation of the shifting-lever 25, whereupon the car will descend to the lower position (shown in Fig. 1) and will be in condition to receive another shock. At this time the shifting-lever is released, and the drum or windlass 20 is again brought into coacting relation with the axle 18.

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

1. A portable elevator of the class described, comprising an inclined frame, a wheeled axle, an elevator-car having members disposed at an angle to each other and arranged for the front member thereof to travel on said inclined frame, the rear member of said car being adapted to assume a horizontal position when the car is lowered to the rear portion

of the inclined frame, and a hoisting mechanism driven from the axle and having operative connection with the elevator-car.

2. An elevating device for shocks, consisting of a wheel-supported frame having inclined channels upon its inner faces, the body portion of the frame being inclined downward and rearward and its upper portion curved downward and forward, a car or platform having wheels arranged to enter the said channels, a winding mechanism mounted on the axle of the wheel-supported frame, a locking connection between the winding mechanism and the axle, a shifting device for the winding mechanism, and a flexible connection between the car or platform and the winding device, as and for the purpose described.

3. In an elevating device for shocks, the combination, with a wheel-supported frame having a body inclined downward and rearward and upwardly and downwardly curved upper portions, the side bars of which frame have longitudinal channels produced therein, closed at their ends, the channels extending practically from one terminal of a side bar of the frame to the other, an axle connected with the said frame, and supporting-wheels secured upon the said axle, of a spring-controlled winding-drum mounted to slide upon and to turn with the axle, engaging projections from the axle and the said drum, a shifting-lever engaging with the said drum and arranged to carry it from operative connection with the axle, a car or platform having friction-wheels at its sides which enter the channels in the said frame, a flexible connection between the winding-drum and the car or platform, roller-guides for such connection, and a section forming a portion of the car or platform, adapted to stand at an angle thereto and prevent the shocks from leaving the platform as it is carried up the inclined plane of the frame, as described.

4. In an elevating device for shocks, the

combination, with a frame the body portion of which is inclined downwardly and forwardly, the upper portion being downwardly and forwardly curved, the side sections of the frame having longitudinal channels produced therein, closed at their ends, an axle supported in bearings carried by the said frame, supporting-wheels secured to the said axle, and an adjustable draft device connected with the axle and frame, of a drum mounted to turn and slide on the axle, the drum being provided with projections at one end adapted to meet extensions from the axle and a spring which acts to carry the said points in engagement, a shifting-lever connected with the said drum, adapted to compress the spring and carry said points out of engagement, a car or platform having rolling extensions adapted to enter the channels of the frame, a flexible connection between the platform and the said frame, guides for the said flexible connection, and an adjustable rear section for the car or platform, which adjustable section comprises a retaining member and a locking member for the retaining member, all combined for operation substantially as shown and described.

5. In a portable elevator of the class described, an elevator-car comprising members disposed at an angle to each other, a supplementary member having hinged connection with one car member, and means for locking the supplementary member in inclined relation to the car member, combined with an inclined frame, and a hoisting mechanism for hauling the car on said frame, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

WILLIAM A. TEA.

Witnesses:

R. R. PARKHURST,
W. H. GARDNER.