

No. 689,421.

Patented Dec. 24, 1901.

A. H. SCHIERHOLZ.
SUGAR CANE LOADER.

(Application filed Feb. 20, 1901.)

(No Model.)

2 Sheets—Sheet I.

Fig. 3.

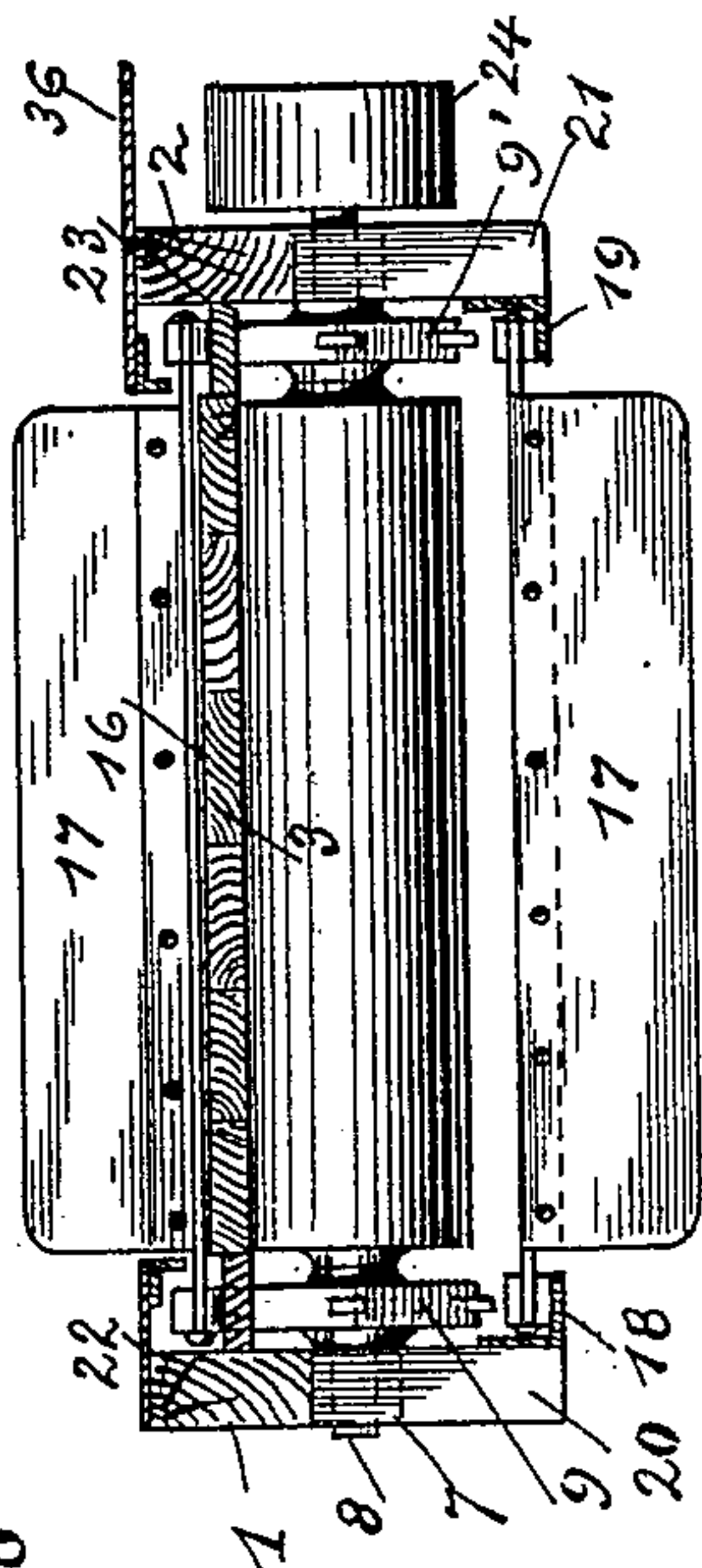
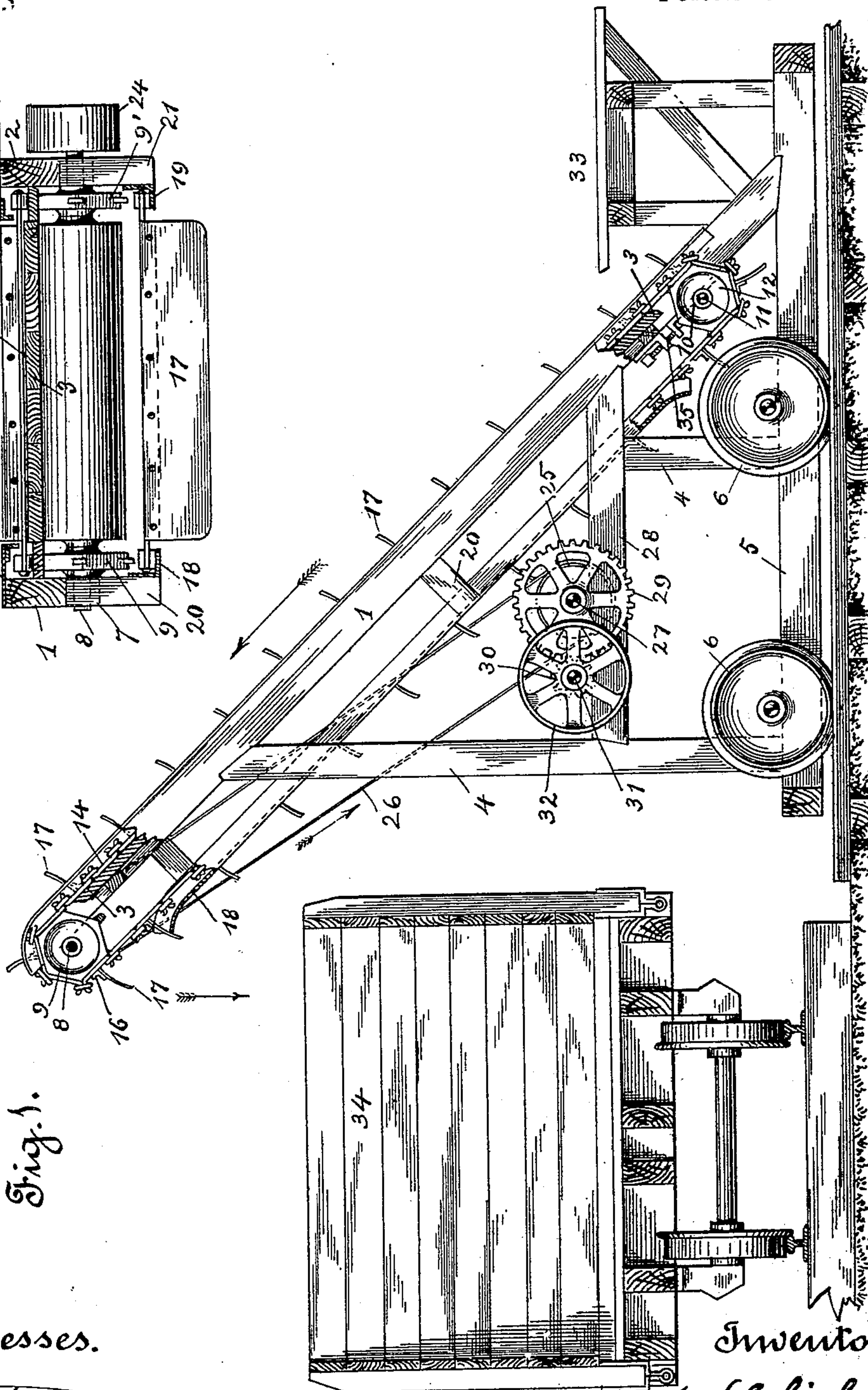


Fig. 1.



Witnesses.

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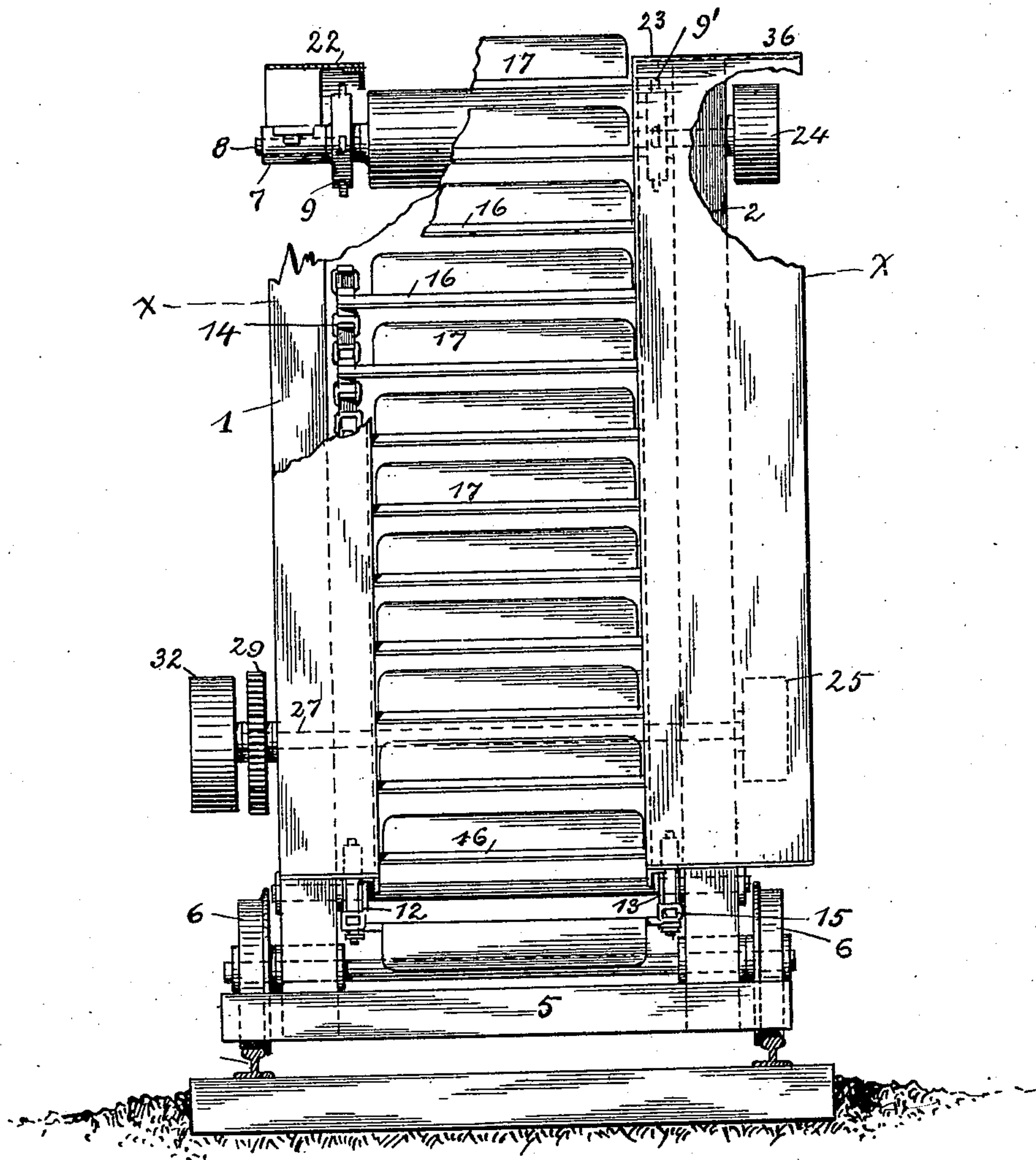
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2 Sheets—Sheet 2.

Fig. 2.



Witnesses.

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UNITED STATES PATENT OFFICE.

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SUGAR-CANE LOADER.

SPECIFICATION forming part of Letters Patent No. 689,421, dated December 24, 1901.

Application filed February 20, 1901. Serial No. 48,075. (No model.)

To all whom it may concern:

Be it known that I, AUGUST H. SCHIERHOLZ, a citizen of the United States, residing in the city and county of San Francisco, in the State of California, have invented certain new and useful Sugar-Cane Loaders; and I do hereby declare the following to be a full, clear, and exact description of the same.

The present invention is designed to facilitate the loading of the sugar-cane into cars or vehicles of transportation and to reduce to a minimum the cost of handling the sugar-cane; and the object of the invention is to produce a compact, comparatively light, and inexpensive machine for the purpose of depositing the sugar-cane onto the car or vehicle of transportation.

In order to understand the invention, reference should be had to the accompanying sheet of drawings, wherein—

Figure 1 is a side view in elevation of the apparatus, partly broken away, illustrating the same in position for loading of cane into a car. Fig. 2 is a front view of the loader. Fig. 3 is a cross-sectional view of the carrier and frame, taken on line *xx*, Fig. 2.

In the drawings the elevator-ladder is illustrated as being composed of the side pieces 1 2 and a supporting-bottom 3. This ladder is rigidly secured to a frame consisting of the uprights 4 and sills 5. The ladder is arranged at a suitable inclination and attached to the uprights 4 and sills 5. By preference the frame is supported by rollers 6, so as to be capable of being readily moved from place to place. In bearings 7, at the upper end of the ladder, works the cross-shaft 8, to which shaft the chain-wheels 9 9' are attached. To the lower end of the ladder are secured the adjustable bearing-boxes 10, within which works the cross-shaft 11. To this shaft chain-wheels 12 13 are secured, which wheels are arranged in line, respectively, with chain-wheels 9 9'. Over the chain-wheels 9 12 works the endless chain 14, and over chain-wheels 9' 13 works the endless chain 15. These chains 14 15 constitute the endless carrier, the same being united by cross-rods 16. Said cross-rods are arranged at equidistance apart throughout the length of the endless chains, and to each

cross-rod is attached an upwardly-extending fingers or finger-plate 17. These finger or finger-plates are preferably curved or inclined, as shown in Fig. 1 of the drawings. During the upward travel of the endless carrier the same is supported by means of the bottom 3. To support the underrun of the endless carrier and prevent sagging thereof during travel from the upper chain-wheels to the lower ones, supporting-tracks 18 19 are provided. These supporting-tracks are suspended from side pieces 1 2, respectively, by means of the hangers 20 21, depending therefrom. On these supporting-tracks rest the endless chains 14 15.

In order to protect the chains of the endless carrier free of the sugar-cane while being elevated, the housings 22 23 are secured to the side pieces 1 2 of the ladder.

To the cross-shaft 8 is fastened the pulley-wheel 24, which is driven from pulley-wheel 25 by means of the belt 26, which belt works over said pulley-wheels. The pulley-wheel 25 is secured to shaft 27, which works in bearing-boxes secured to the cross-pieces 28 of the ladder-frame. To this shaft is also fastened the gear 29, which gear meshes with pinion 30, attached to cross-shaft 31. This shaft also works in bearings of the cross-pieces 28 and in addition to the intermeshing pinion 30 carries a belt-wheel 32. By means of a belt (not shown) the belt-wheel is driven by any suitable source of power.

At the lower end of the ladder is supported the receiving-table 33. Onto this table the sugar-cane to be deposited into the car 34 is delivered. The sugar-cane placed upon the receiving-table is fed onto the endless carrier, by which it is elevated and discharged into the car 34. The sugar-cane is prevented from slipping backward during the movement of the endless carrier by the fingers or finger-plates projecting from the carrier.

The slide or adjustable bearing-boxes 10 are moved up and down, so as to regulate the tension of the endless carrier by means of the tension-regulating device 35.

In order to provide against any of the sugar-cane which may slip from the carrier falling onto the belt 26, the housing 23 is pro-

vided with an extension 36. This extension projects beyond the side piece 1 and covers the drive-belt. This protection is necessary, else the sugar-cane would be liable to clog the
5 drive-belt.

Having thus described the invention, what is claimed as new, and desired to be protected by Letters Patent, is—

A portable sugar-cane loader comprising
10 conveying instrumentalities, a frame structure carried thereby, an inclined ladder rigidly secured to said frame structure, a feed-table at the foot of said ladder, driving devices mounted on said frame structure, a belt
15 26 between said driving devices and the upper end of said carrier located at one side thereof, a continuous supporting-bottom 3 for

the overrun of said carrier, supports 18 and 19 for the underrun thereof, hangers 20 and 21 for suspending said supports in proper re-
20 lation to said carrier, oppositely-disposed housings secured to the upper surfaces of the side pieces of said ladder and overhanging the edges of said carrier, and an outwardly-extending projection of the adjacent housing
25 overhanging said belt 26, substantially as and for the purpose described.

In witness whereof I have hereunto set my hand.

AUGUST H. SCHIERHOLZ.

Witnesses:

N. A. ACKER,

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