

No. 776,594.

PATENTED DEC. 6, 1904.

J. H. JACK.
DUMPING WAGON.

APPLICATION FILED MAR. 14, 1904.

NO MODEL.

2 SHEETS—SHEET 1.

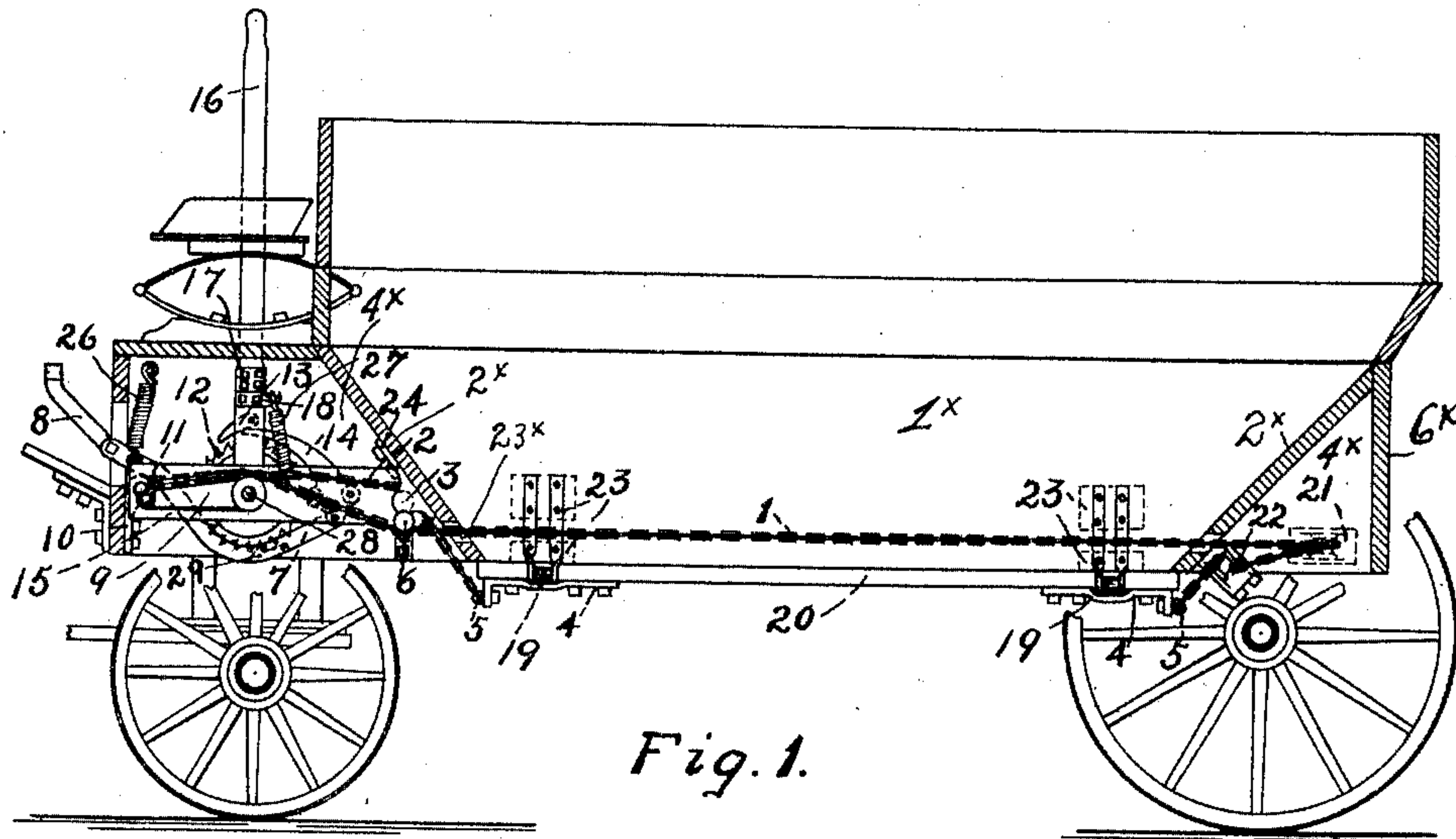


Fig. 1.

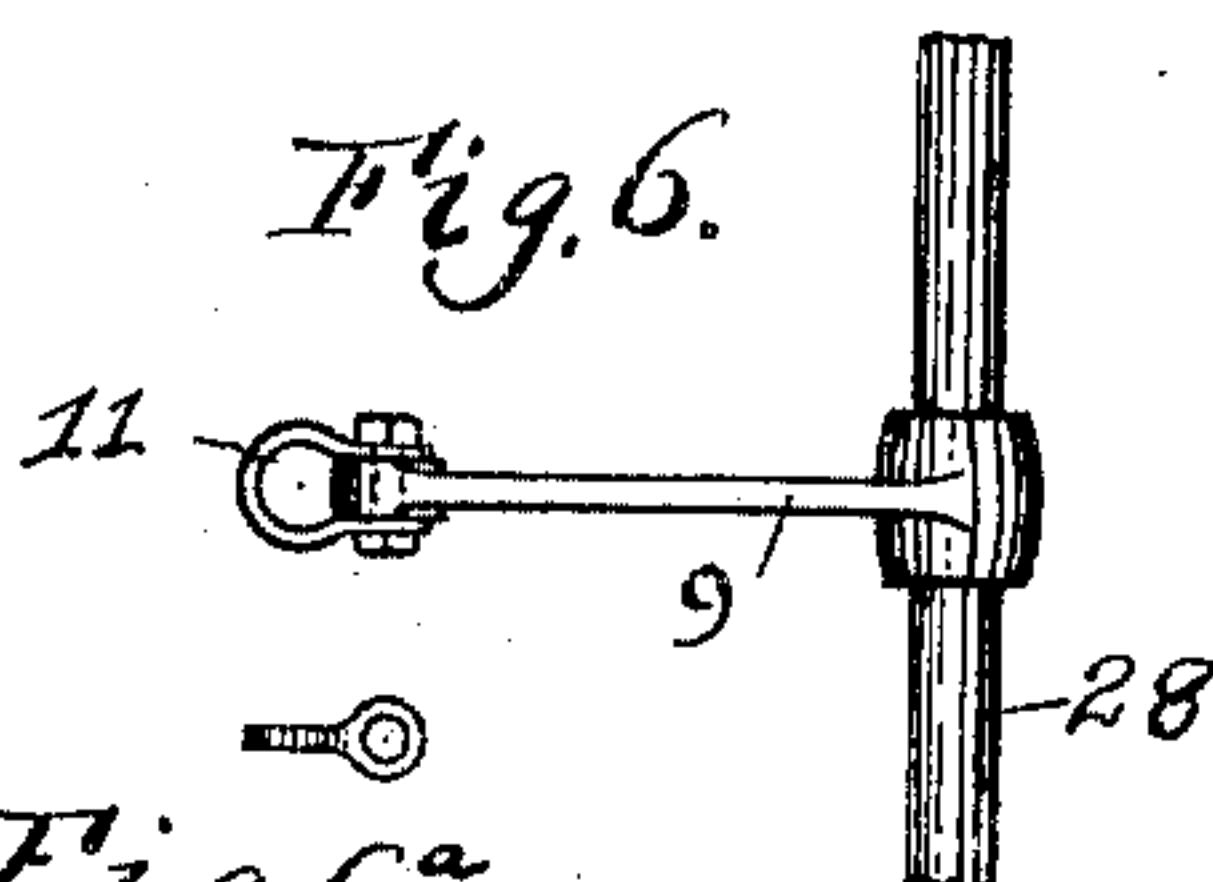


Fig. 6a.

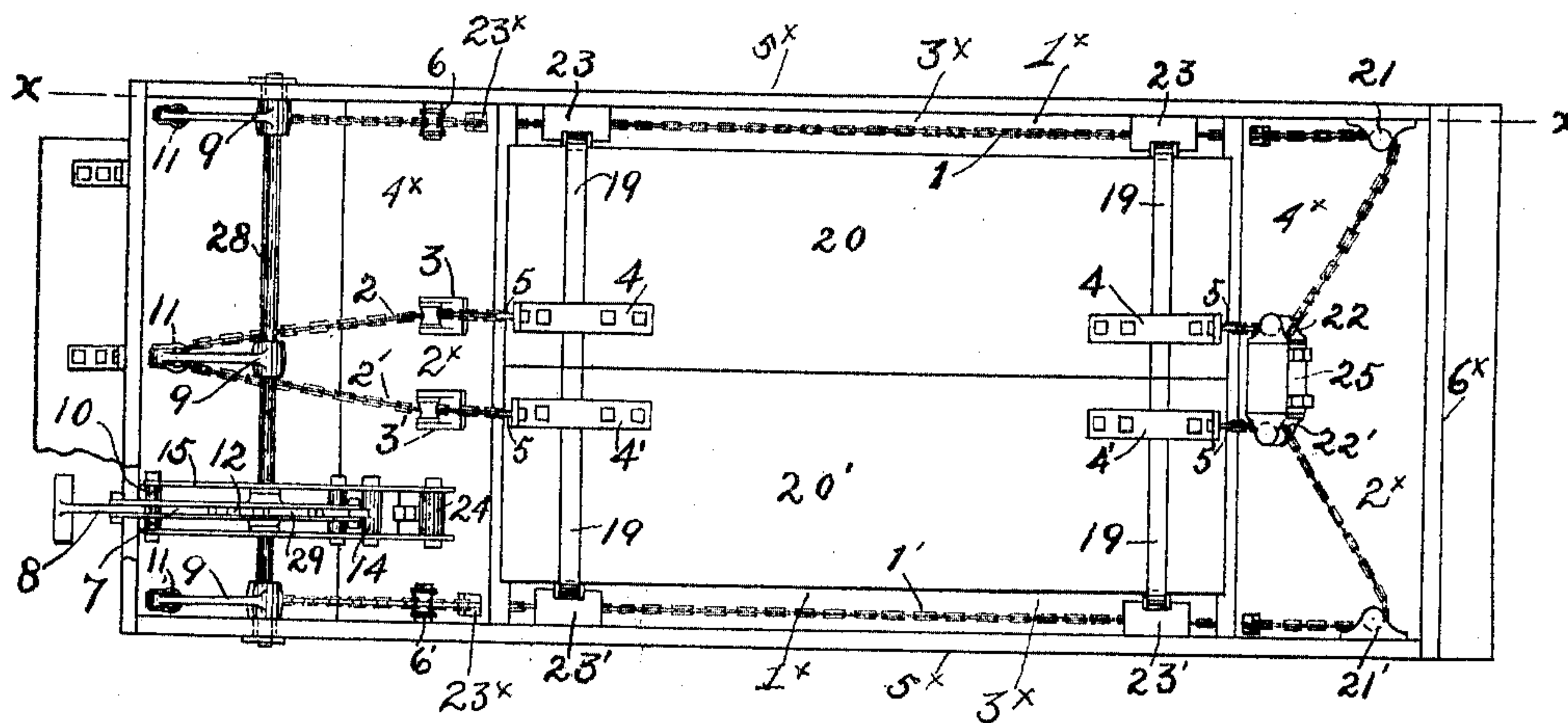


Fig. 2.

Witnesses.

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2 SHEETS—SHEET 2.

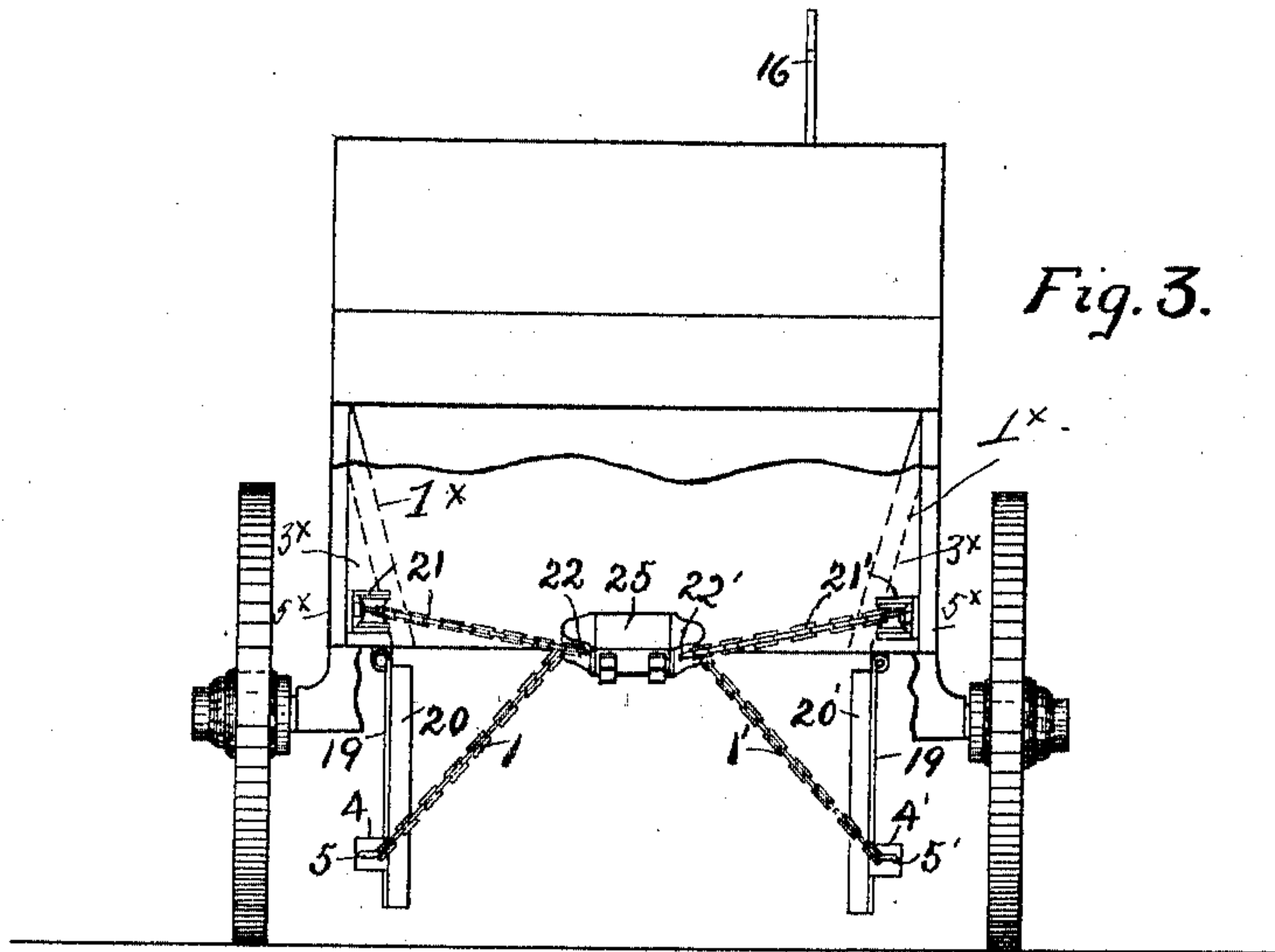


Fig. 3.

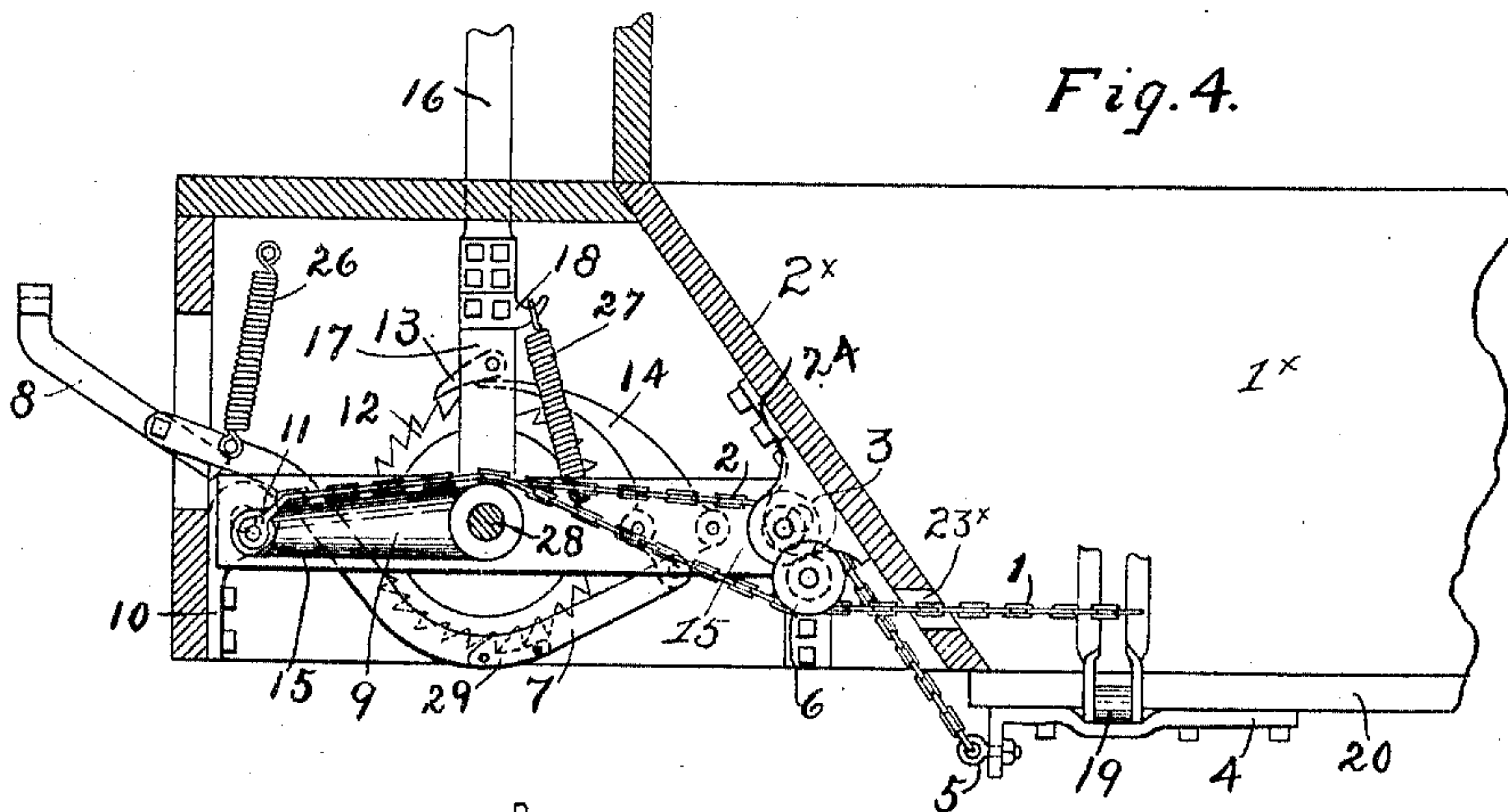


Fig. 4.

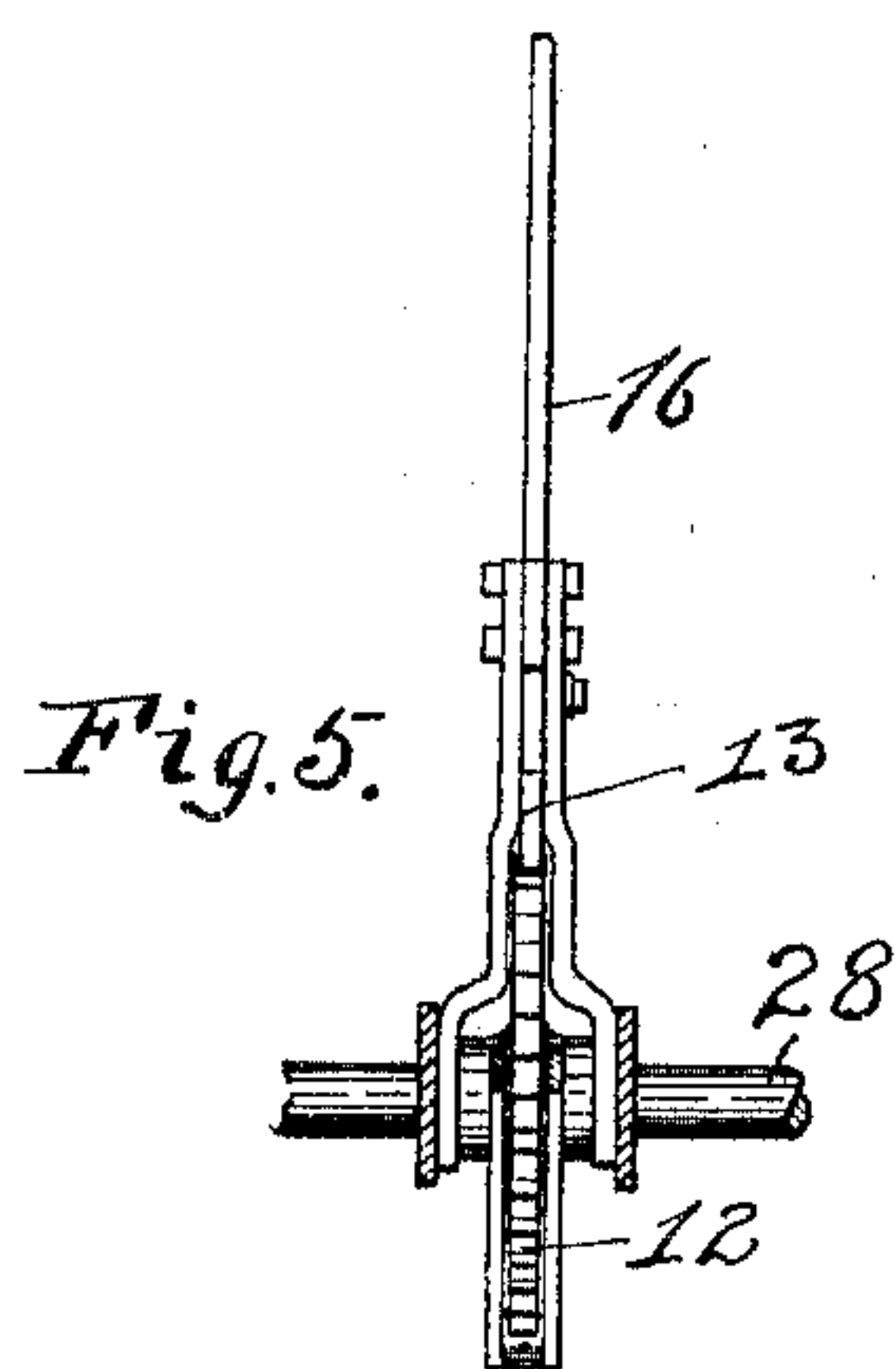


Fig. 5.

Witnesses.

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UNITED STATES PATENT OFFICE.

JOSEPH H. JACK, OF DAYTON, OHIO.

DUMPING-WAGON.

SPECIFICATION forming part of Letters Patent No. 776,594, dated December 6, 1904.

Application filed March 14, 1904. Serial No. 197,984. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH H. JACK, a citizen of the United States, residing at Dayton, in the county of Montgomery and State of Ohio, have invented certain new and useful Improvements in Dumping-Wagons; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

This invention relates to improvements in dumping-wagons.

The object of the invention is to provide a dumping-wagon having the characteristics of utility hereinafter described and claimed.

Preceding a detail description of the invention reference is had to the accompanying drawings, of which—

Figure 1 is a sectional elevation on the line *x x* of Fig. 2. Fig. 2 is a bottom plan view of the wagon-body. Fig. 3 is a rear elevation. Fig. 4 is an enlarged sectional elevation of the front end of the wagon; Fig. 5, a detail view of the ratchet mechanism for turning the shaft; Fig. 6, a detail view of the connection between the shaft and chains; Fig. 6^a, a detail of one of the clevises.

In a detail description similar reference characters indicate corresponding parts.

The inner sides and ends 1^x and 2^x of the wagon-body occupy slanting positions and provide side and end spaces 3^x and 4^x, which are inclosed by the outer side and end walls 5^x and 6^x of the wagon-body. These spaces conceal at the sides and ends of the wagon-body chains 1 and 1', that are rigidly fixed to the rear ends of the hinged bottoms or doors 20 and 20' by means of brackets 4 and 4' and clevises 5. The chains are thus prevented from becoming entangled and are concealed from view. The bottoms or doors 20 and 20' are connected to the lower edges of the inner slanting walls by hinges 19, which extend in bars across the doors and form braces to strengthen the ends of the doors. The chains 1 and 1' pass over pulleys 22 22' adjacent to the rear ends of the doors, said pulleys being

mounted in a pulley-block 25, that is secured in the space 4^x at the rear end of the wagon in a suitable position to permit the chains to pass around the inclosed sides of the wagon-body within the spaces 3^x. The said chains after departing from the pulleys 22 22' are carried around pulleys 21 21', secured in pulley-blocks attached to the rear ends of the inner sides of the wagon-body. These chains then pass independently of each other and approximately in the same plane along the sides of the wagon-body within the inclosed spaces and through the hinge-blocks 23 23'. The said chains pass through openings 23^x in the forward inclined wall 2^x and thence pass over rollers 6 6', which are secured to the upright sides 5^x at the front. The extreme forward ends of these chains pass to and are connected with crank-arms 9 9, which are fixed to operating-shaft 28, that is suitably journaled in the sides of the wagon-body.

The front ends of the doors 20 20' have chains 2 2', which are attached thereto by means of similar brackets 4 4' and clevises 5, and these chains pass over front rollers 3 3', which are mounted on brackets against the forward inclined wall 2^x within the front inclosed space. These chains 2 2' are likewise secured to a crank-arm 9, which is mounted in the center of the shaft 28. All of these crank-arms have clevises 11 pivoted to them, to which the ends of the chains are connected. The chains may be connected with said shaft in any other manner which enables said shaft to take up and let out the chains in the operations of lowering and raising the bottom doors 20 20'. I therefore do not wish to restrict myself to the identical manner of connecting the chains with the shaft, as my broad invention consists in connecting the opposite ends of the doors with chains firmly attached thereto, and which chains are carried independently of each other to one end of the wagon-body, where they are independently connected to a common shaft.

8 designates a foot-lever arranged at the front end of the wagon and fulcrumed within the front inclosed space. This lever carries a ratchet-pawl 29, which engages a ratchet-wheel 12 on the shaft 28. Pressure upon this

foot-lever will disengage said pawl and permit the bottom doors 20 20' to dump.

16 is a closing-lever which carries a ratchet-pawl 13, that engages said ratchet-wheel 12 to elevate said doors. When this lever 16 is in its upright position after having been moved forward to elevate the doors, the pawl 13 is held out of engagement with the ratchet-wheel by an arm 14, which is fixed between two straps 15, that inclose the sides of the ratchet-wheel and have their ends fixed to the front walls of the wagon-body at 10 and 24.

The levers 8 and 16 are normally held by springs 26 27. The foot-lever 8 has its rearward end 7 suitably curved to conform to the shape of the ratchet-wheel in order that the pawl 29 may be properly mounted thereon.

Having described my invention, I claim—

In a dumping-wagon, a body having side spaces inclosed by the outer sides of the wagon-body, and inner slanting sides providing such inclosed spaces throughout the length of the wagon-body, hinged bottoms connected to the lower edges of the inner inclined walls of the wagon-body, chains 1 1' connected directly to the rear ends of said doors, pulleys adjacent to said connected ends of said chains and around which said chains pass in oblique directions, said pulleys being inclosed in a pul-

ley-block 25 secured to the rearward-inclined floor of the wagon-body, pulleys 21 and 21' secured to the inner sides of the outer walls of the wagon-body and around which said chains pass, said chains extending forwardly through the inclosed spaces at the sides of the wagon-body and being supported within said spaces upon supports 23 and 23', forward chains 2 and 2' connected directly to the front ends of the hinged bottoms and extending forwardly over supporting-pulleys 3 and 3', a rocker-shaft 28 journaled in the forward ends of the sides of the wagon-body, arms 9 rigidly attached to said rocker-shaft and to which the forward ends of the chains 1 1' 2 2' are secured, an operating-lever connected to said shaft and carrying a ratchet-pawl, a ratchet-wheel fast upon said shaft and engaged by said pawl to elevate the hinged bottoms, a foot-lever below said ratchet-wheel, an arm 14 pivoted to said foot-lever and extending beneath said pawl, all assembled and operating, substantially as shown and described.

In testimony whereof I affix my signature in presence of two witnesses.

JOSEPH H. JACK.

Witnesses:

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