

No. 623,017.

Patented Apr. 11, 1899.

F. E. HESTON.
DUMPING WAGON.

(Application filed Jan. 3, 1899.)

(No Model.)

2 Sheets—Sheet 1.

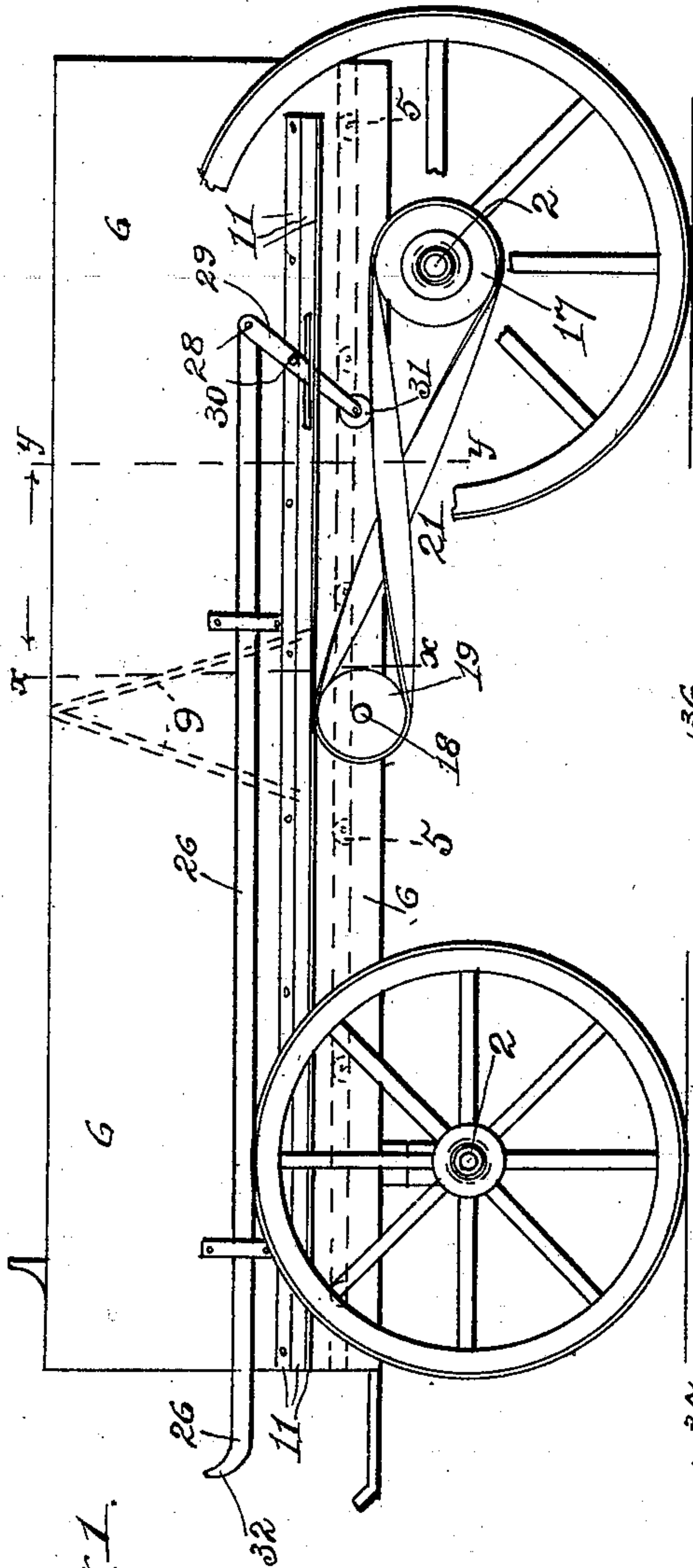


Fig. 1.

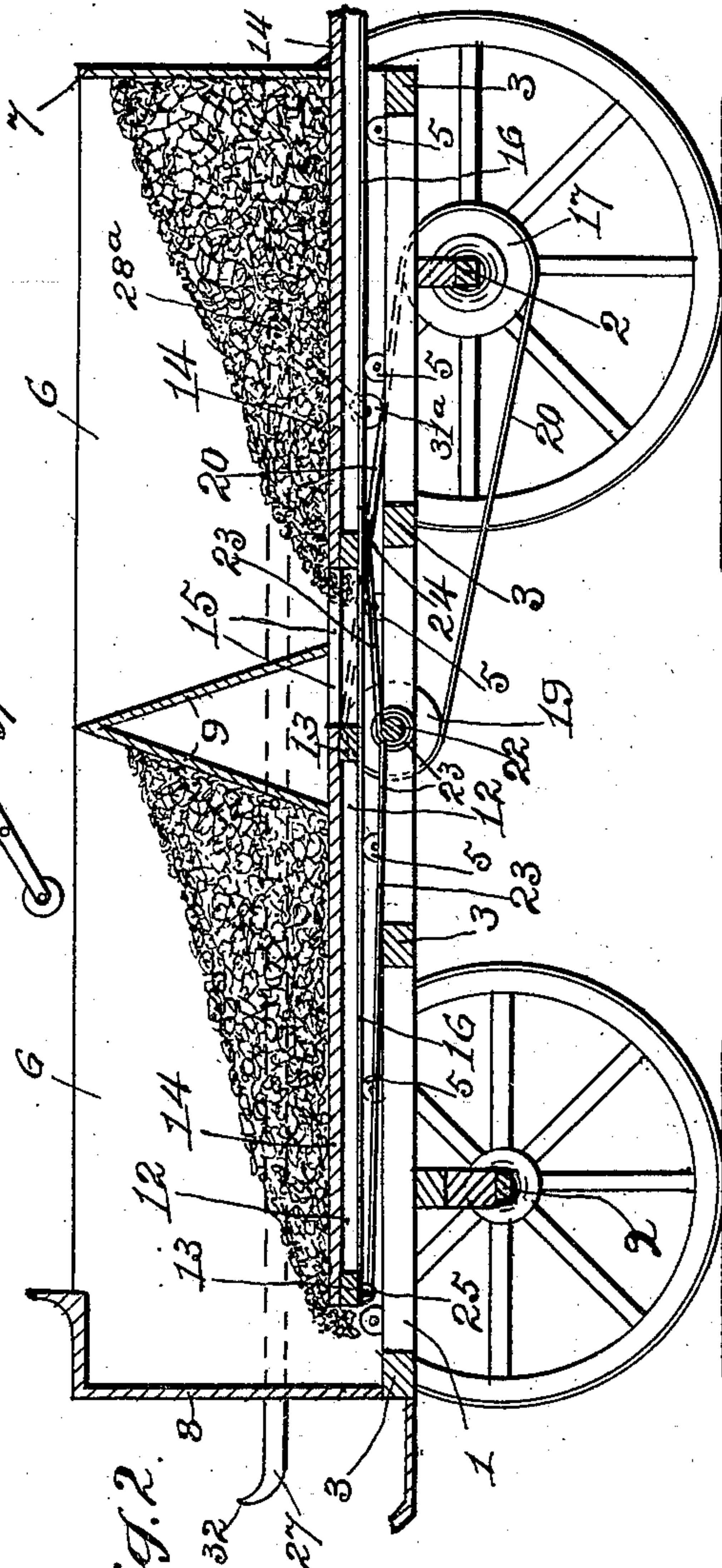


Fig. 2.

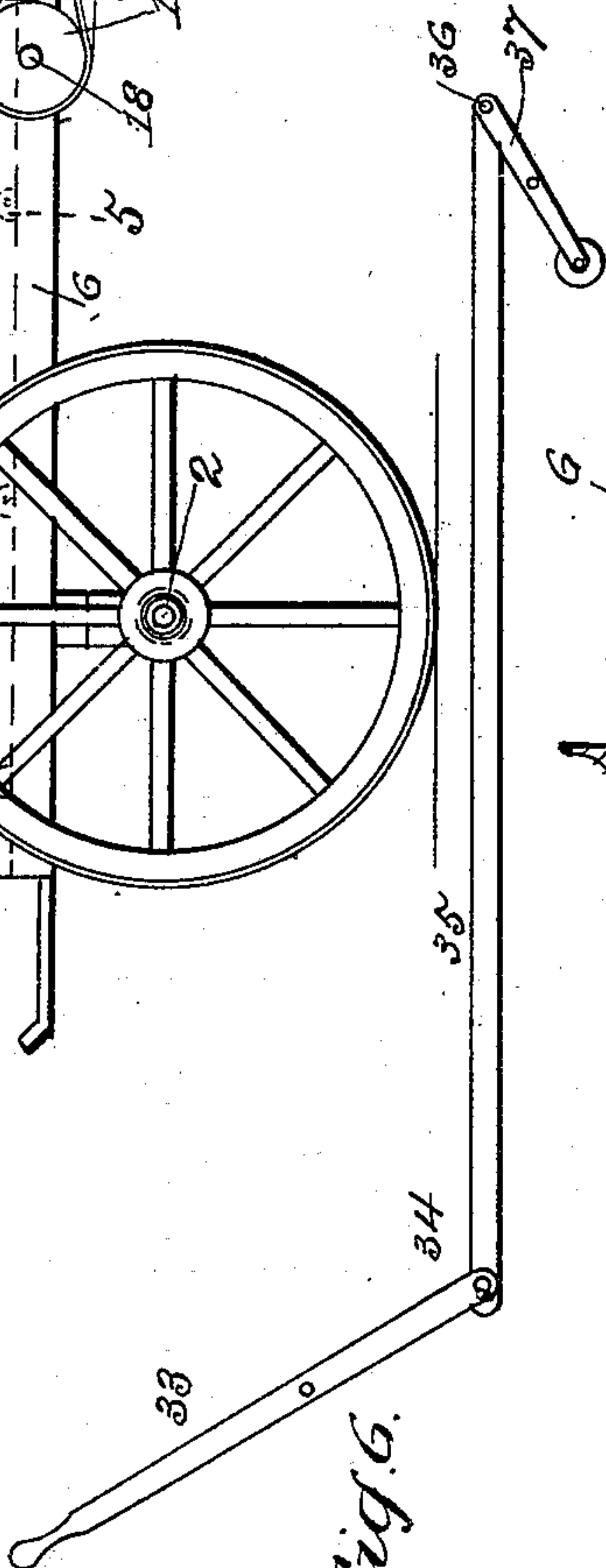


Fig. 6.

Witnesses.

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Fig. 3.

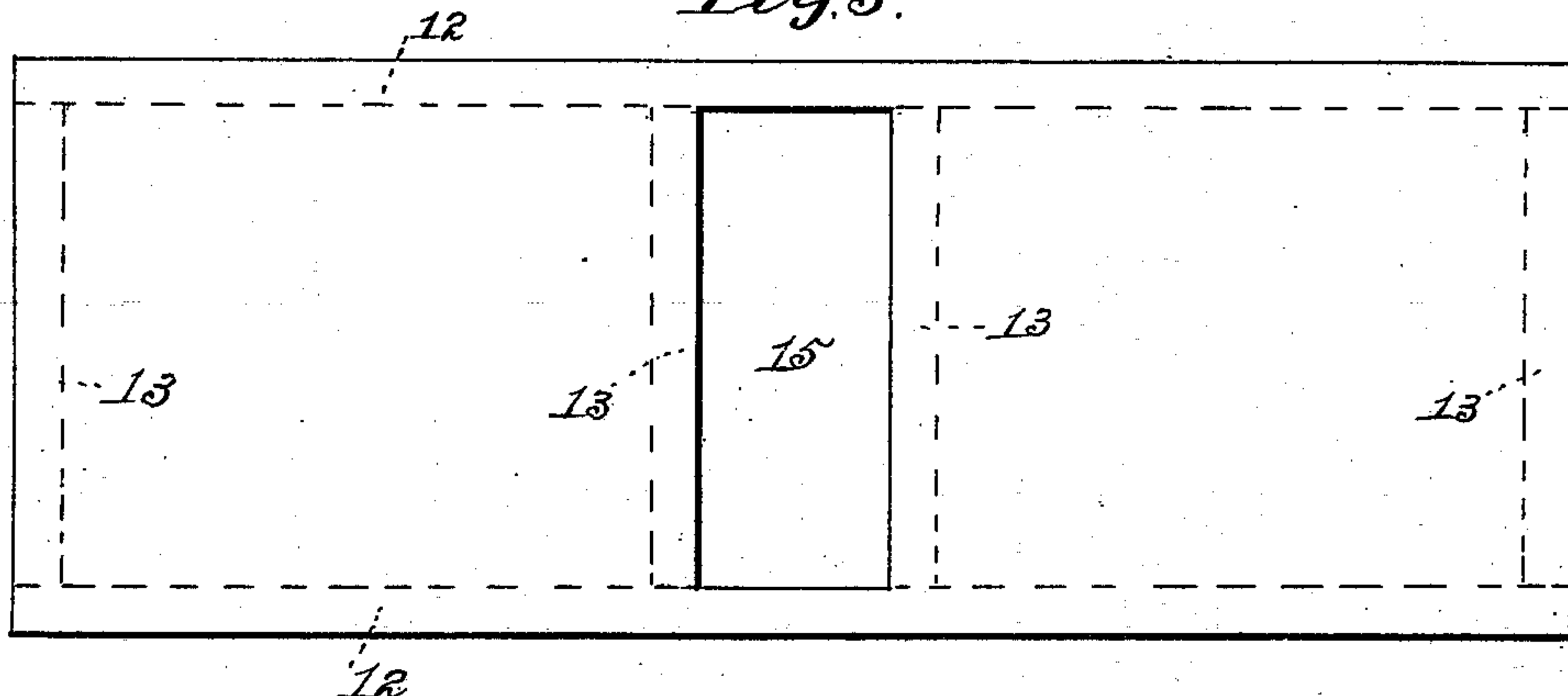


Fig. 4.

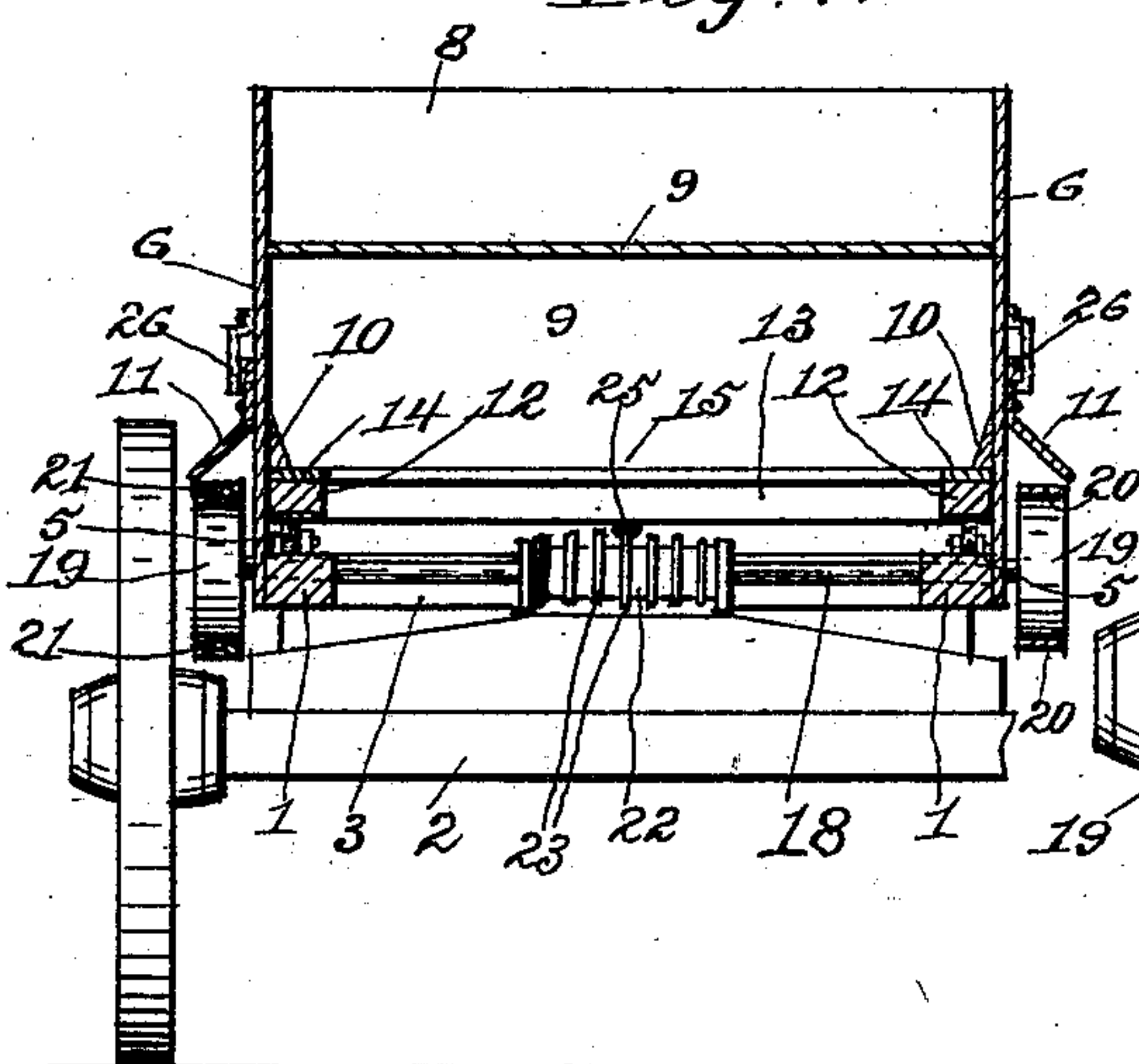
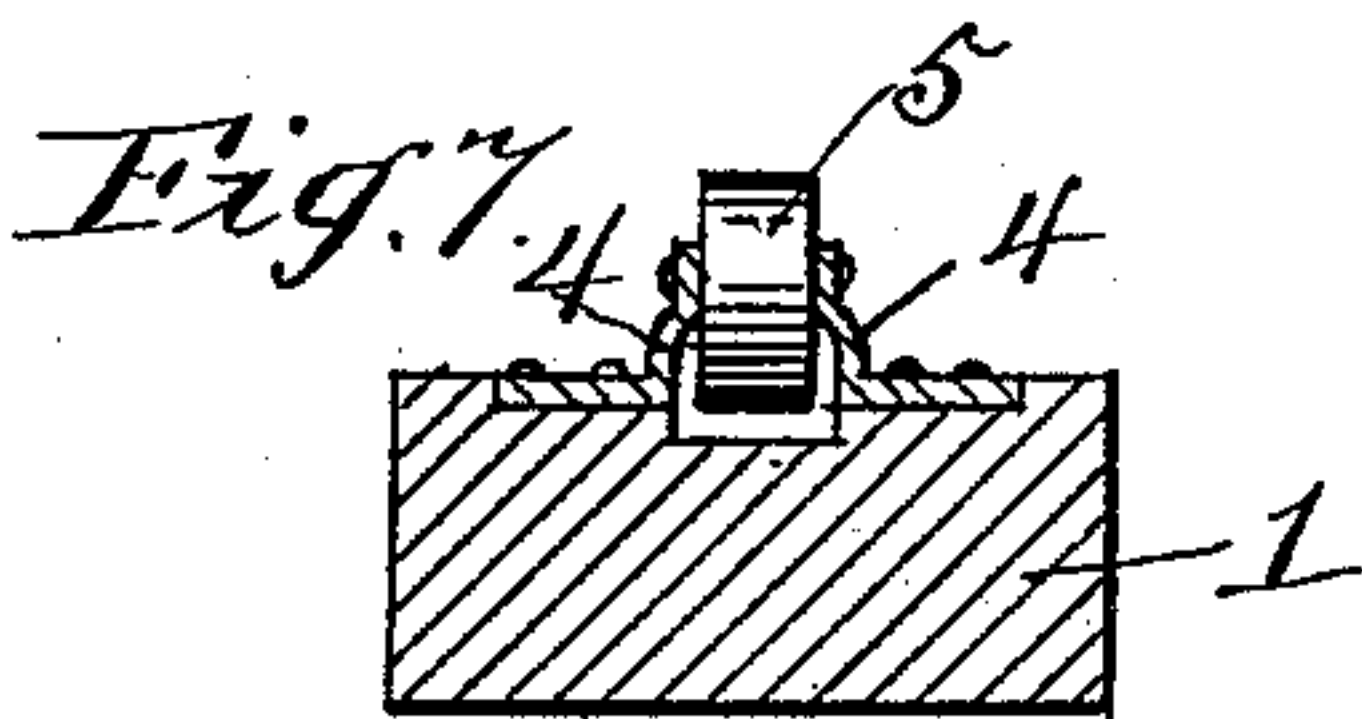
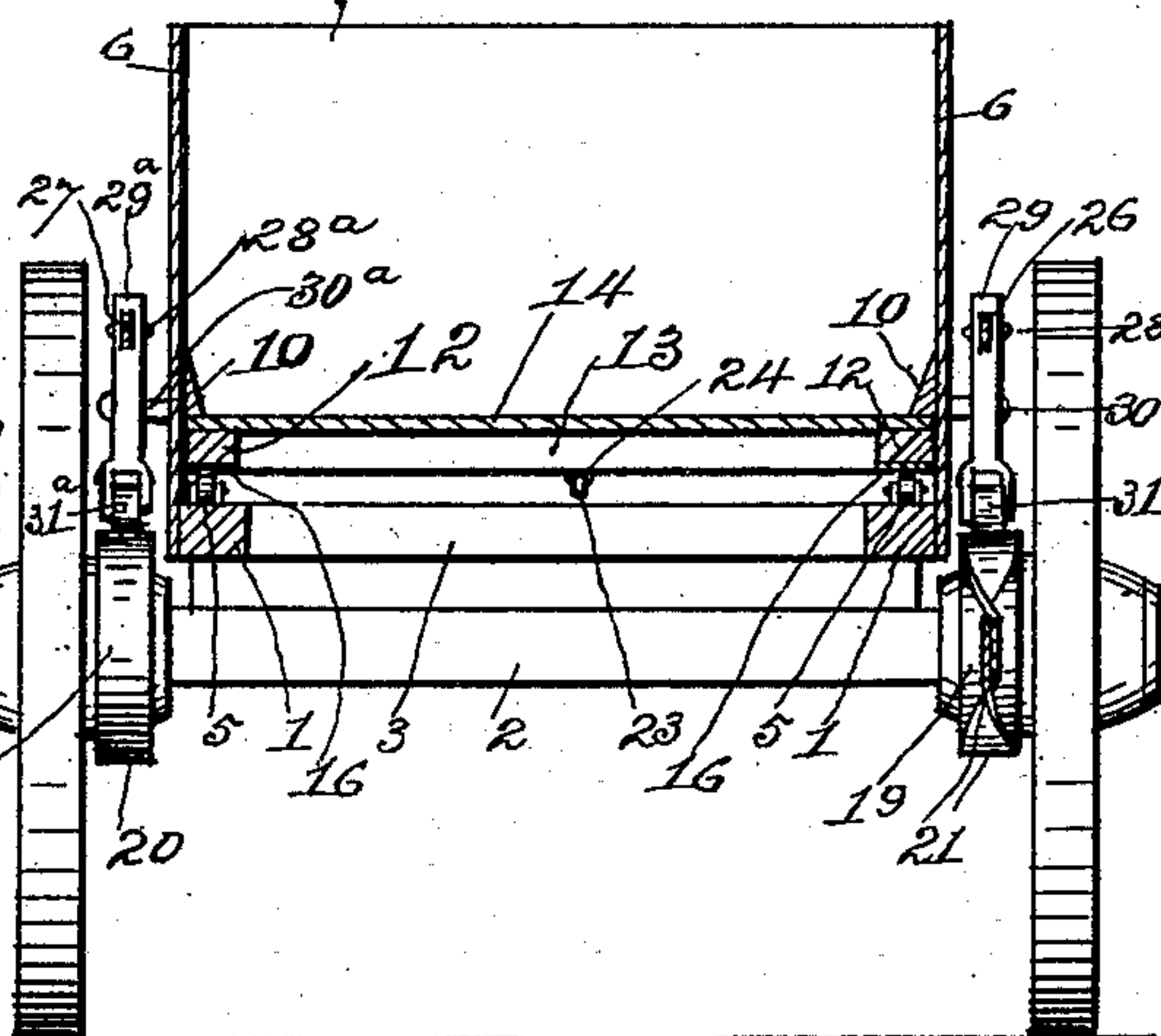


Fig. 5.



Witnesses.

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UNITED STATES PATENT OFFICE.

FRANK E. HESTON, OF RUSHLAND, PENNSYLVANIA.

DUMPING-WAGON.

SPECIFICATION forming part of Letters Patent No. 623,017, dated April 11, 1899.

Application filed January 3, 1899. Serial No. 700,962. (No model.)

To all whom it may concern:

Be it known that I, FRANK E. HESTON, a citizen of the United States, residing at Rushland, in the county of Bucks and State of Pennsylvania, have invented certain new and useful Improvements in Dumping-Wagons, of which the following is a specification.

This invention relates to dumping-wagons, and particularly to a wagon adapted to deposit its load by degrees as the wagon is moved forward without tilting the body or the bed, and is especially applicable in road-grading or where a distribution of the load is desired.

The prime object of the invention is to provide an improved dumping-wagon of such construction that the entire load or part thereof, as desired, may be discharged through the bottom of the wagon by the movement of the traveling bed in a backward direction.

A further object of the invention is to provide a traveling bed of novel and peculiar construction, means for imparting motion from the wagon-wheels to the bed, and special means for controlling the travel of the bed.

Other objects and advantages accruing from the special construction and arrangement of parts and resulting in essential improvements in this class of wagons will be pointed out in the specification and claims to follow.

In the accompanying drawings, forming part of this application, Figure 1 is a side view. Fig. 2 is a longitudinal section showing the wagon as in operation. Fig. 3 is a top view of the traveling bed. Fig. 4 is a cross-section on the line X X, Fig. 1. Fig. 5 is a similar view on the line y y, Fig. 1, with the hoods removed. Fig. 6 is an elevation of a modified form of lever. Fig. 7 is a detail section showing a roller and brackets.

The same numeral references denote the same parts throughout the several figures of the drawings.

The wagon-frame consists of the longitudinal timbers 1, suitably connected to the axles 2 and cross-beams 3 and joining the timbers 1. The timbers 1 have brackets 4 set into the top surface, and said brackets have rollers or wheels 5 journaled therein.

The body of the wagon has sides 6, secured to the timbers 1, a rear end 7, secured to the sides, which end terminates above the said timbers to leave an opening for the traveling

bed, and a front 8, secured to the said sides and to the front cross-beams, which closes the front end of the wagon-body. The said body has a central inverted-V-shaped partition formed of inclined boards 9, which extend across from one of the sides 6 to the other and to which sides the boards are secured. Upon the inner sides of the sides 6 are secured longitudinal strips 10, under which the traveling bed is moved, and the outer side of the sides is provided with shields or hoods 11.

The traveling bed consists of longitudinal beams 12, joined by cross-braces 13, and a top 14, secured to the said beams and braces and having a discharge-opening 15 equal in area to the wide portion of the V-shaped partition and in normal position standing directly under said wide portion. The longitudinal beams 12 have metallic tracks 16 for the wheels 5, and the top 14 slides under the strips 10 and against the sides 6, so that the traveling bed is free to be moved back and forth in the wagon-body and under the V-shaped partition.

The means for imparting motion to the traveling bed from the wagon-wheels consists of a pulley 17 on the inner end of each rear-wheel hub, a cross-shaft 18, provided at each end with a pulley 19, a straight belt 20 on one side of the wagon to move the traveling bed forward or return the same to normal position, a cross-belt 21 on the other side of the wagon to move the said bed backward, a drum 22, secured to the said shaft, and a cable 23, one end of which is secured to the bed at 24. The cable is wound around the drum and the other end is secured to the said bed at 25.

The means for controlling the movement of the traveling bed consists of the levers 26 and 27, pivoted at 28 and 28^a, arms 29 and 29^a, which are fulcrumed at 30 and 30^a to the sides 6 of the wagon-body, said arms having bearing-rollers 31 and 31^a. The levers have a foot-piece 32 at the front of the wagon in convenient reach of the driver. A modified form of these levers is shown in Fig. 6, wherein is provided a hand-lever 33, fulcrumed at 34 with the lever 35, pivoted at 36 to the roller-arm 37.

The operation of the wagon is as follows: The load rests upon the traveling bed, and the

wagon being drawn to a place of deposit the wagon is continued in its forward movement and the lever 26 is operated to force the roller 31 upon the cross-belt 21, the latter thereby turning the shaft and drum to operate the cable 23 and run the traveling bed backward, which permits the load in the front of the wagon to fall through the opening or space left there by the bed, and the load in the rear of the wagon drops through the opening 15. To return the bed to normal position, the lever 27 is operated to force the roller 31^a on the opposite side of the wagon in engagement with the straight belt 20, the wagon being continued in its forward movement. These operations are accomplished without stopping the wagon, yet it may be stopped when it is desired to deposit a load in one place and the same operations effected by turning the drum-shaft by hand.

It is obvious that the style of wagon may be changed and the location and dimensions of the several parts be varied without departing from the spirit of my invention.

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

1. The combination, with the fixed wagon-body having a cross-partition, of a traveling bed having a discharge-opening and loosely

contained in said body, and means to extend and retract the bed by the forward movement of the wagon.

2. The combination, with a wagon having a body provided with a central cross-partition, of the traveling bed having a discharge-opening equal in area to the said partition, and loosely contained in said body, the drum, the cable, means to impart the motion of the wagon to the bed, and the bearing-rollers having a lever connection and adapted to vary the movement of the said bed.

3. In a dumping-wagon, the combination of the traveling bed having a discharge-opening, and the partition fixed in the body of the wagon and adapted to cover said opening when the bed is in normal position, and to direct the discharge of a load during the travel of the bed.

4. The combination, with the wagon-body, and the inverted-V-shaped partition fixed in the body, of the bed movable under said partition, and having a discharge-opening closed by said partition.

In witness whereof I hereunto set my hand in the presence of two witnesses.

FRANK E. HESTON.

Witnesses:

M. S. HESTON,
M. S. GRANT.