

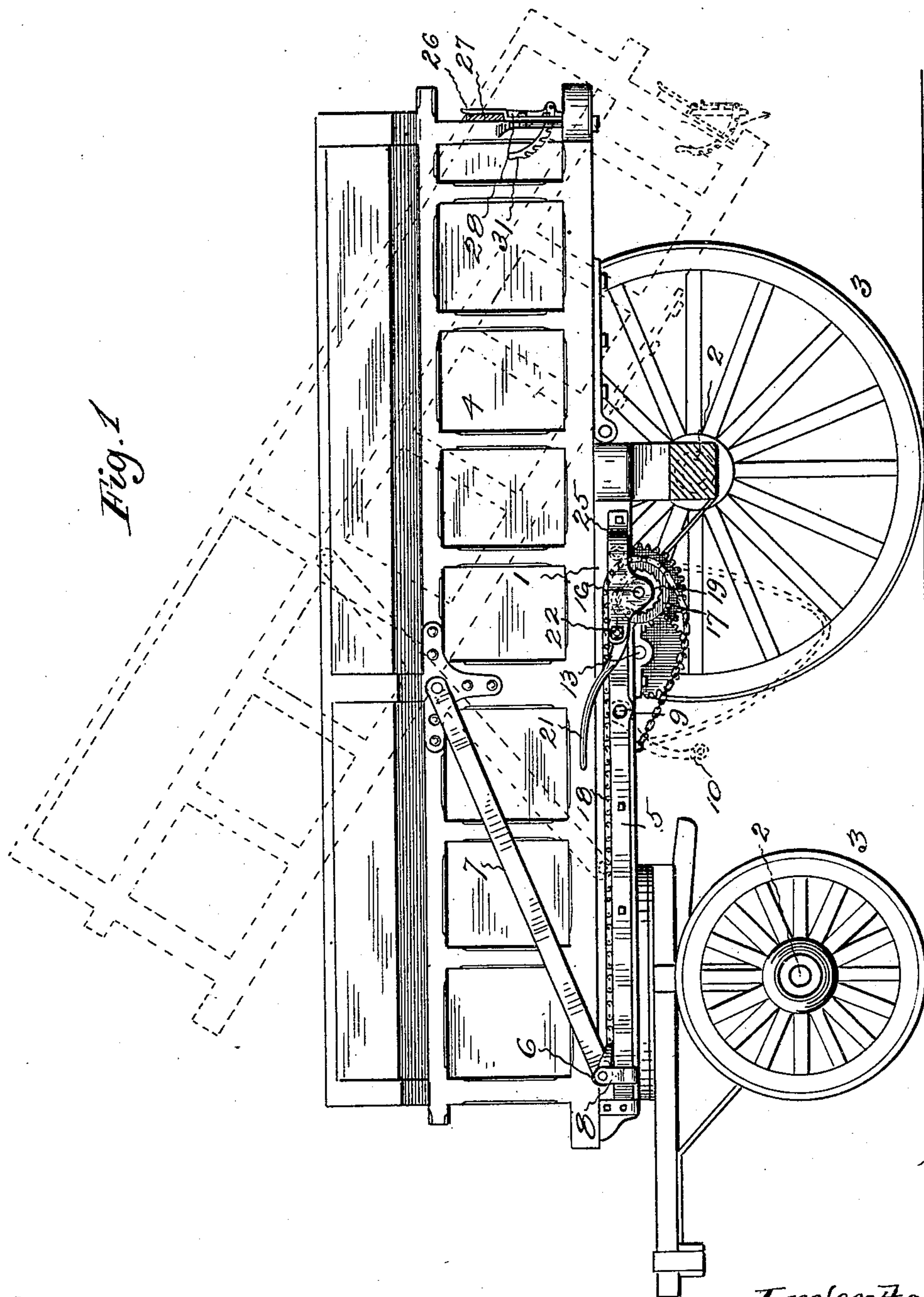
No. 722,896.

PATENTED MAR. 17, 1903.

C. PULLAR.
DUMPING WAGON.
APPLICATION FILED NOV. 1, 1902.

NO MODEL.

2 SHEETS—SHEET 1.



Witnesses
C. F. Kilgore
Evel M. Lowe.

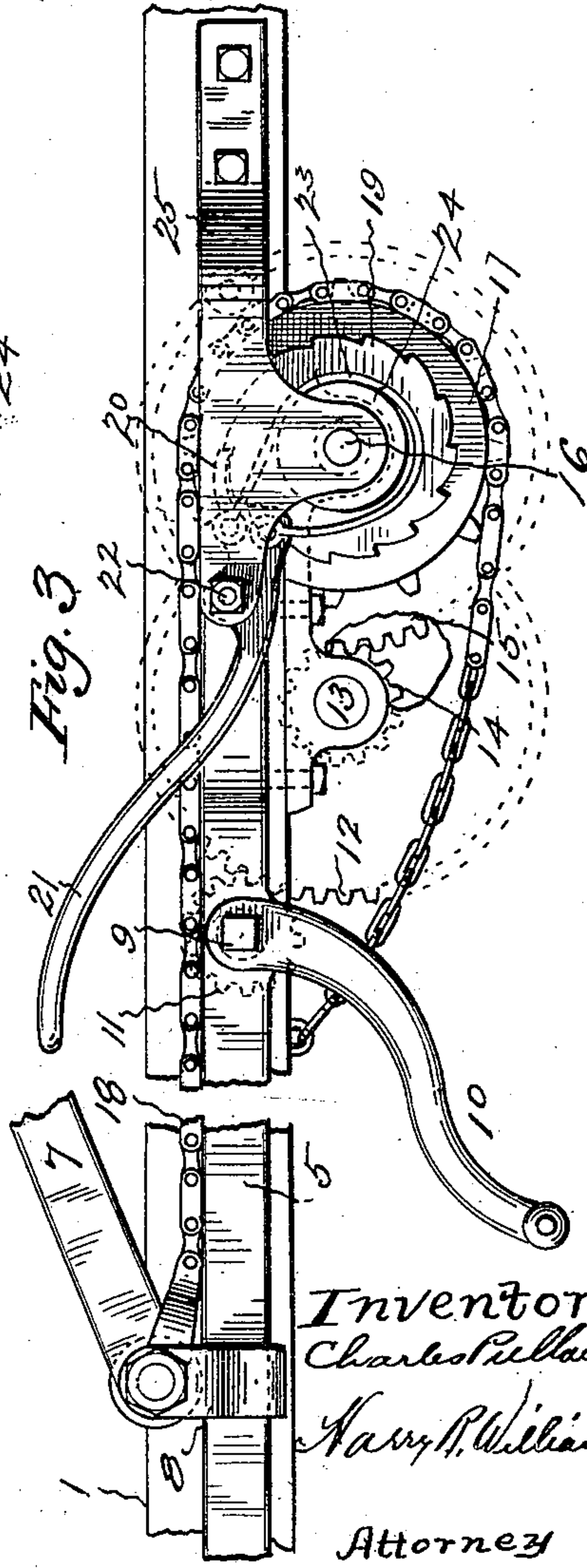
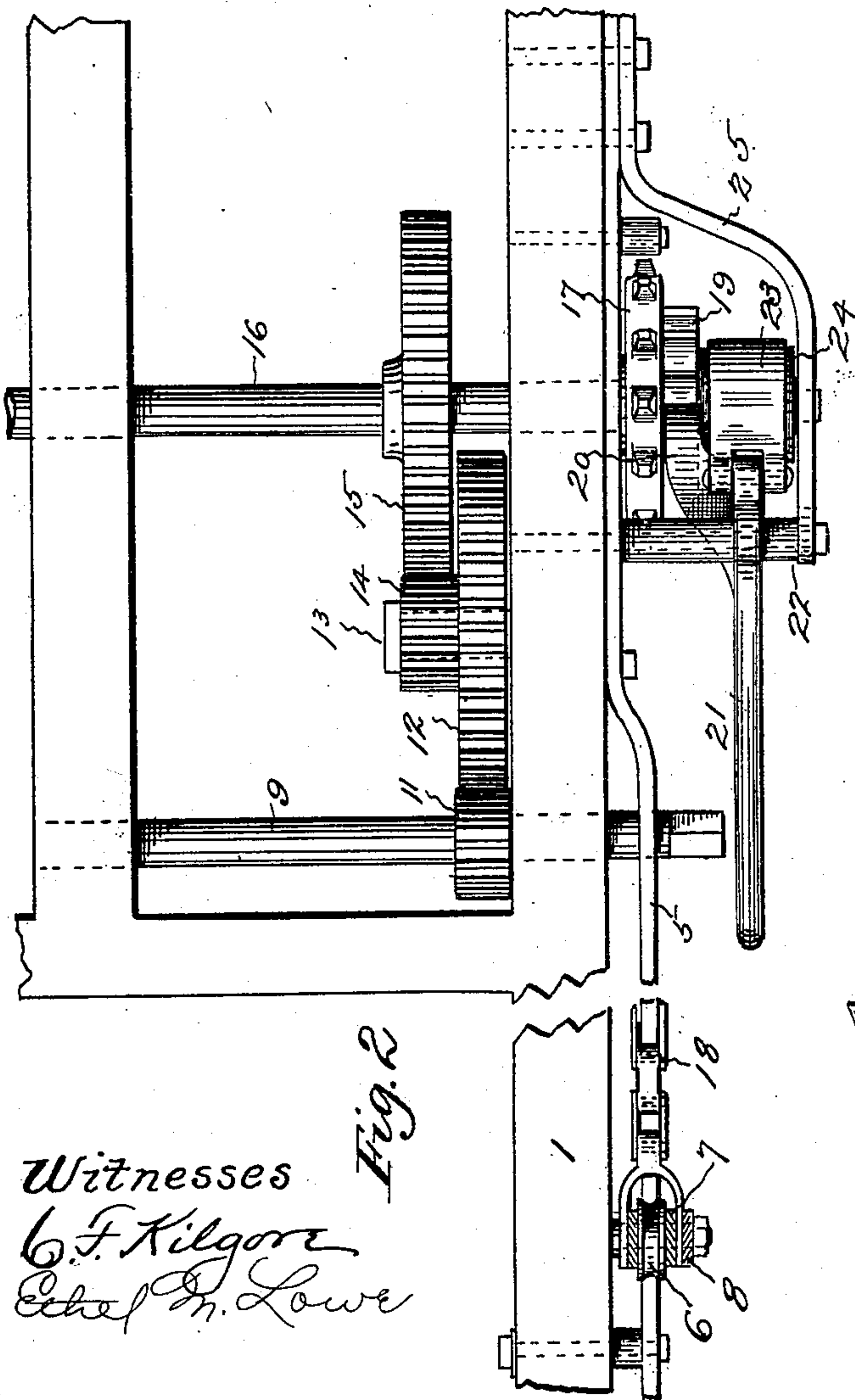
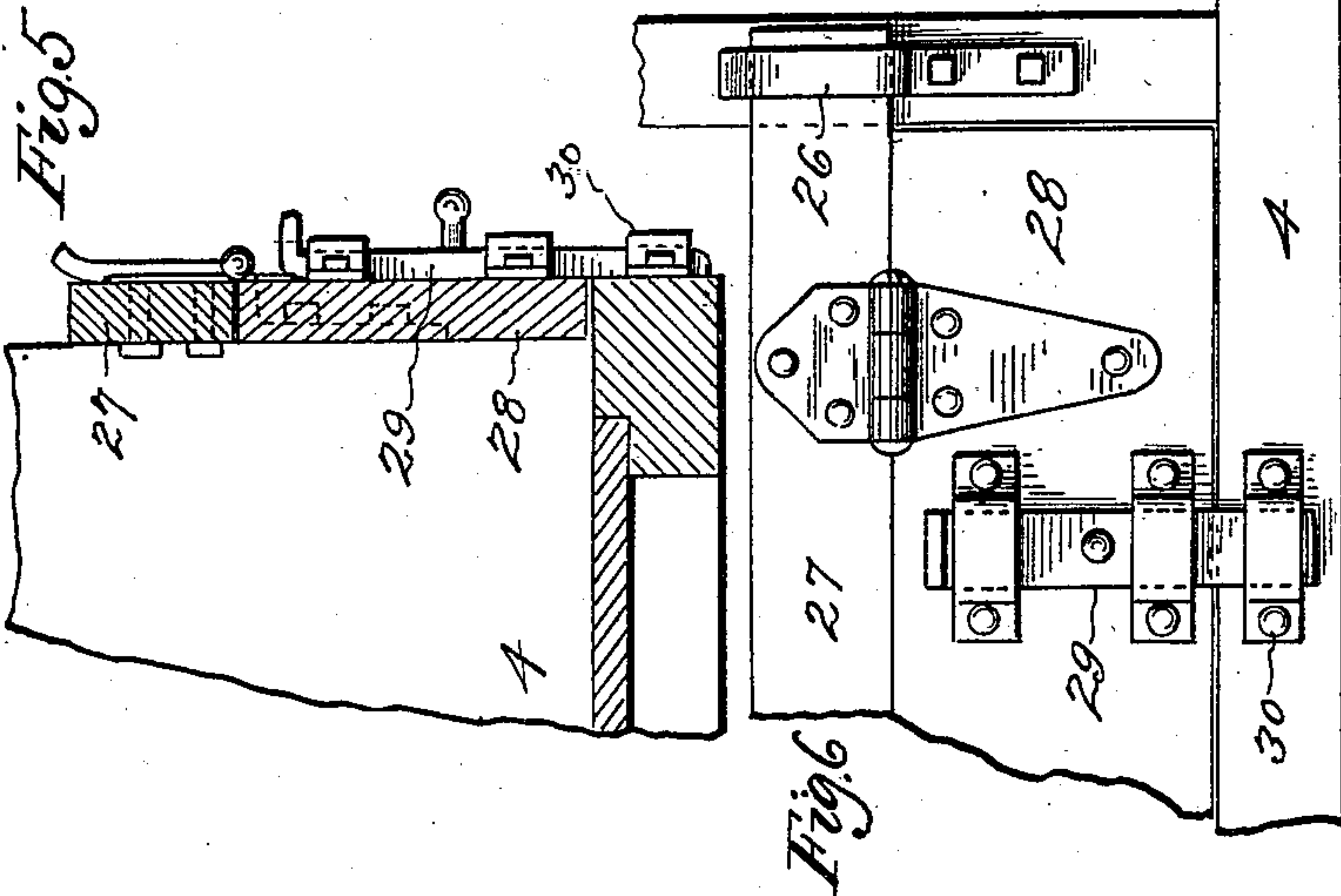
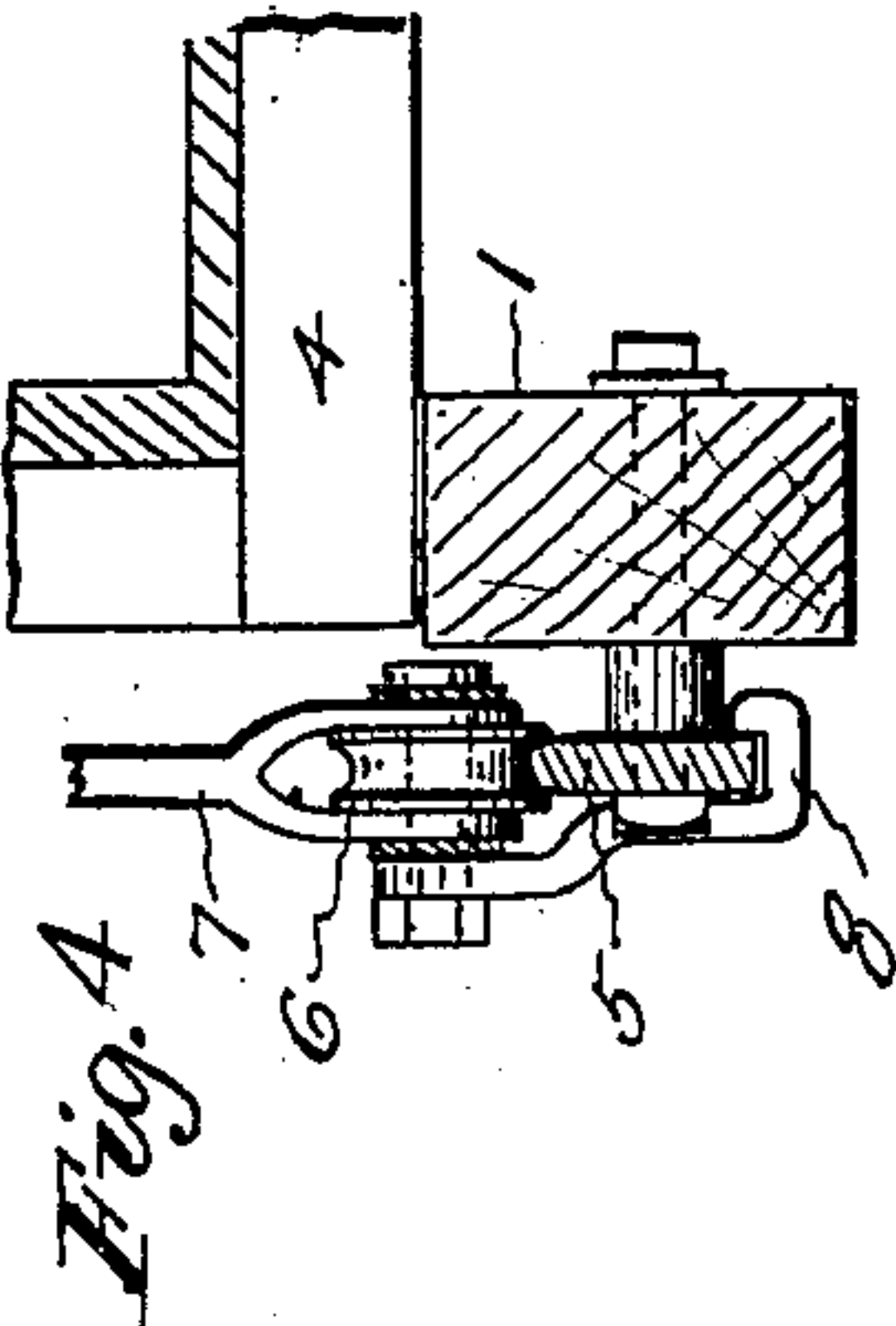
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2 SHEETS—SHEET 2.

NO MODEL.



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UNITED STATES PATENT OFFICE.

CHARLES PULLAR, OF HARTFORD, CONNECTICUT.

DUMPING-WAGON.

SPECIFICATION forming part of Letters Patent No. 722,896, dated March 17, 1903.

Application filed November 1, 1902. Serial No. 129,689. (No model.)

To all whom it may concern:

Be it known that I, CHARLES PULLAR, a citizen of the United States, residing at Hartford, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Dumping-Wagons, of which the following is a specification.

This invention relates to the construction of a wagon which has a body that is adapted to be tilted for dumping its load by means of levers and chains operated by a crank and gearing. It is desirable to so construct such a wagon that when tipped for dumping the lower end of the body will be close to the ground in order that the load, if brick, soft coal, or other friable material, may not be broken up when discharged, or if the load is ashes or garbage it may be discharged without falling through the air and becoming agitated and spread by the wind, or if it is sand or fine stone it may be sprinkled evenly and in small quantities along a roadway.

The object of this invention is to provide a low dumping-wagon of this nature with a mechanism that is simple and easy to operate and that is cheap and durable in construction.

The wagon that is illustrated as embodying the invention has a frame supported upon axles in the usual manner, with a long body that extends over both axles and is connected with the frame at the rear axle by a hinge and is connected with the frame on each side by a lever that has one end pivoted to the body and the other end movable along a rail attached to the frame. Sprocket-chains that pass around sprocket-wheels on a shaft that is geared to a crank-shaft are connected with the movable ends of the levers, and the sprocket-shaft is provided with a ratchet-and-pawl stop and a friction brake mechanism. The body at the rear has an adjustable door, whereby the load may be slowly distributed when the body is tilted and the door is open.

Figure 1 of the accompanying drawings shows a side elevation of a dumping-wagon having the improvements, with the tilted position of the body represented in dotted outline. Fig. 2 shows a plan of a portion of the frame, a lever, the operating-gearing, and brake mechanism. Fig. 3 shows a side elevation of the parts represented in Fig. 2. Fig. 4 shows

the manner of connecting an end of a lever with a rail attached to the frame. Fig. 5 shows a vertical section through the rear end of the body, and Fig. 6 shows an elevation of a part of the rear end of the body.

The frame 1 is mounted upon axles 2, that are supported by wheels 3 in the usual manner. The body 4, built to any desired shape, is hinged to the frame over the rear axle, so that its forward end will extend over and be supported by the front axle. A rail 5 is bolted to the outside of each side of the frame. Resting upon the upper edge of each of these rails is a roll 6, that is held in the lower forked end of a lever 7. This roll at the lower end of each lever is kept upon the rail by a strap 8, that extends from the arbor of the roll beneath the rail. The upper end of each of the levers is pivoted to the side of the wagon-body a little in front of the middle.

Extending transversely of the frame near the middle is a short shaft 9. The outer end of this shaft is square for the application of a crank 10, and on the shaft just inside of the frame is a pinion 11. This pinion meshes with a much larger gear 12 on a short shaft 13, provided with a small pinion 14, that meshes with a large gear 15 on the shaft 16. On the shaft 16 each side of the frame is a sprocket-wheel 17. Sprocket-chains 18, that are connected with the lower ends of the levers, pass around the sprocket-wheels. Attached to one sprocket-wheel is a ratchet-wheel 19. A pawl 20, having a handle 21, is mounted on the stud 22, projecting from the side frame, so as to engage the teeth of this ratchet-wheel. The handle of this pawl is connected with a brake-band 23, that passes around the hub 24 of the ratchet-wheel. The sprocket-wheels and the ratchet-wheel and its hub are keyed to the shaft 16 in any suitable manner. A yoke-strap 25 is fastened to the side frame to support the end of the shaft. When the crank is turned, the pinions and gears rotate the sprockets and cause the chains to draw the lower ends of the levers rearwardly along the rails, and thus raise the front end of the body. The pawl when engaged with the ratchet-teeth prevents the parts from turning back and allowing the front end of the body to lower. By means of this construction it is easy to tilt the body,

although it does extend considerably more forward of the hinge than back of the hinge. When it is desired to allow the body to resume its normal position, the handle of the
 5 pawl is depressed, and this lifts the pawl from the ratchet-teeth and permits the sprocket-wheel to turn so that the ends of the levers may move forwardly and let the front part of the body down. A quick downward move-
 10 ment of the handle releases the pawl from the ratchet-teeth, but applies friction to the hub, so that the lowering of the front end of the body is under perfect control and may be accomplished as fast or as slow as desired.

15 A hook 26 is bolted to the rear of the body on each side. Removably held by these hooks is a bar 27. Hinged to this bar is a door 28. This door is provided with bolts 29, that are adapted to be pushed into sockets
 20 30, attached to the frame for holding the door closed. Attached to each end of the door is a notched segment 31, that is adapted to engage a pin projecting from the side of the body. When these segments are lifted, the
 25 door may be swung on its hinges; but when the notches of the segments are engaged with the pins the door is held against movement. By this simple arrangement the door may be fastened shut or held with an opening of any
 30 desired extent at the lower rear end of the body, so that when the wagon is tipped, as illustrated by the dotted lines on Fig. 1, material may be spread or sprinkled from the body in the quantities desired.

35 This wagon is very strong. The mechanism is simple and is so arranged that it requires but little exertion to dump a heavy load. The body is so hung that the front axle as well as the rear axle supports the weight,
 40 and the rear end of the body is quite close to the ground when it is tipped for dumping, so that material which is liable to be easily broken may be discharged without damage.

I claim as my invention—

45 1. A dumping-wagon having a frame supported by wheel-axles, a body extending over and supported by both axles and hinged to the rear of the frame, rails secured to the outside of the side bars of the frame, a lever piv-
 50 oted to the body on each side and having a

roll resting upon a side rail, straps connect-
 ing the ends of the levers with the rails, a transverse shaft provided with a pinion and adapted to receive a crank, a transverse shaft
 provided with a large gear that meshes with 55 the pinion on the crank-shaft and provided with a small pinion that meshes with a large gear on the sprocket-shaft, a sprocket-wheel on the sprocket-shaft outside of each side of the frame, a chain passing around each
 60 sprocket-wheel and having an end connected with the lower end of a lever, a ratchet-wheel mounted upon the sprocket-shaft, a pawl adapted to engage the ratchet-teeth, a handle adapted to release the pawl from the ratchet-
 65 teeth and a brake-band connected with the pawl-handle and passing around the hub of the ratchet-wheel, substantially as specified.

2. A dumping-wagon having a frame sup-
 ported by wheel-axles, a body extending over 70 and supported by both axles and hinged to the rear of the frame, rails secured to the outside of the side bars of the frame, a lever pivoted to the body on each side and having a roll resting on a side rail, a transverse shaft 75 provided with a pinion and adapted to receive a crank, a transverse shaft provided with a large gear that meshes with the pinion on the crank-shaft and provided with a small pinion that meshes with a large gear on the
 80 sprocket-shaft, a sprocket-wheel on the sprocket-shaft outside of each side of the frame, a chain passing around each sprocket-wheel and having an end connected with the lower end of a lever, a ratchet-wheel mount-
 85 ed upon the sprocket-shaft, a pawl adapted to engage the ratchet-teeth, a handle adapted to release the pawl from the ratchet-teeth, a brake-band connected with the pawl-handle and passing around the hub of the ratchet-
 90 wheel, a door hinged to the rear of the body, segments pivoted to the ends of the door and pins projecting from the body and adapted to engage the notches of the segments, substantially as specified.

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Witnesses:

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