

No. 700,571.

Patented May 20, 1902.

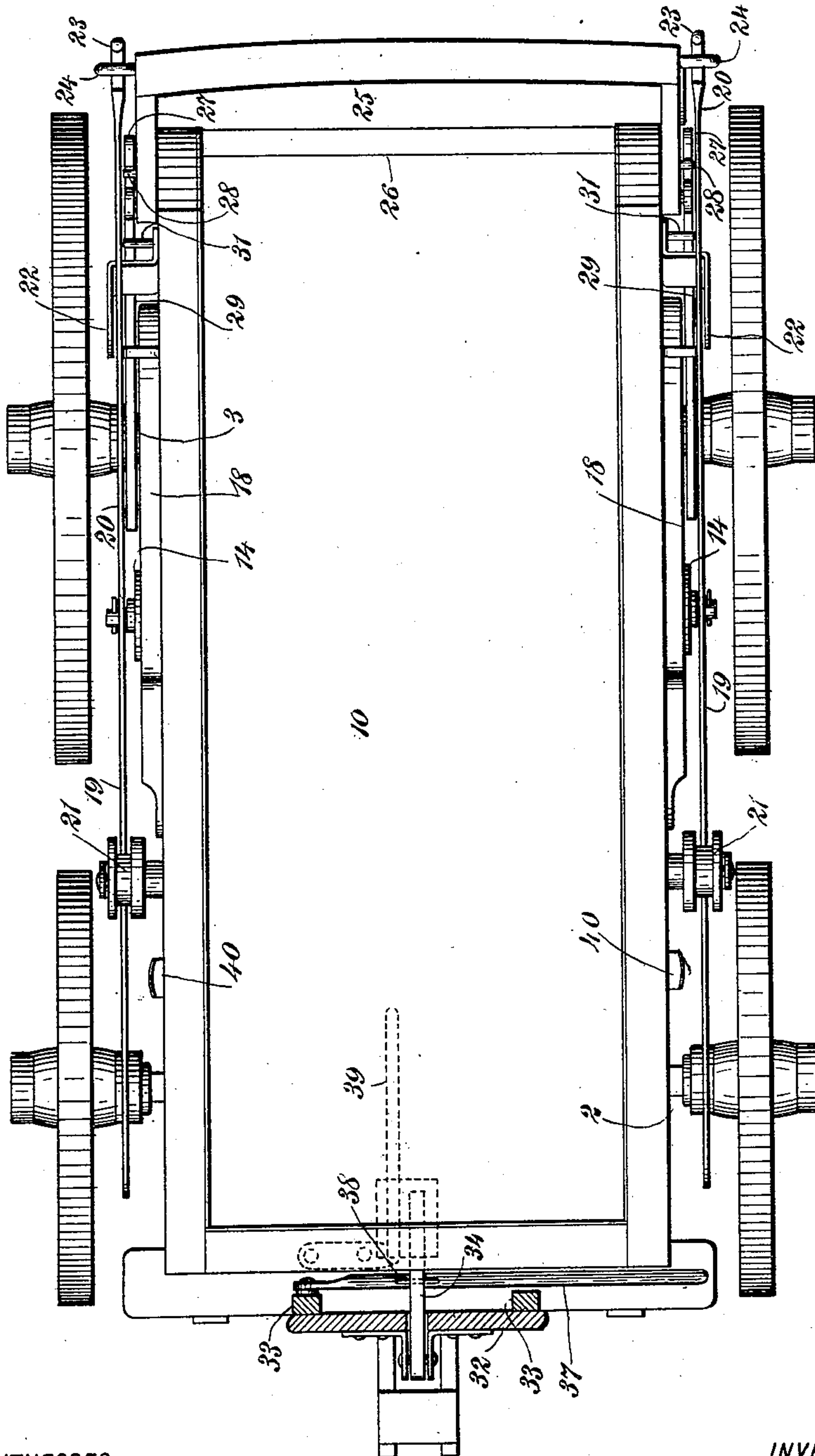
H. F. SHEPHARD.
DUMPING VEHICLE.

(Application filed Feb. 12, 1902.)

(No Model.)

4 Sheets—Sheet 1.

Fig 1



WITNESSES:

J. J. Propley
C. R. Ferguson

INVENTOR

Henry F. Shepard

BY

Mum

ATTORNEYS

No. 700,571.

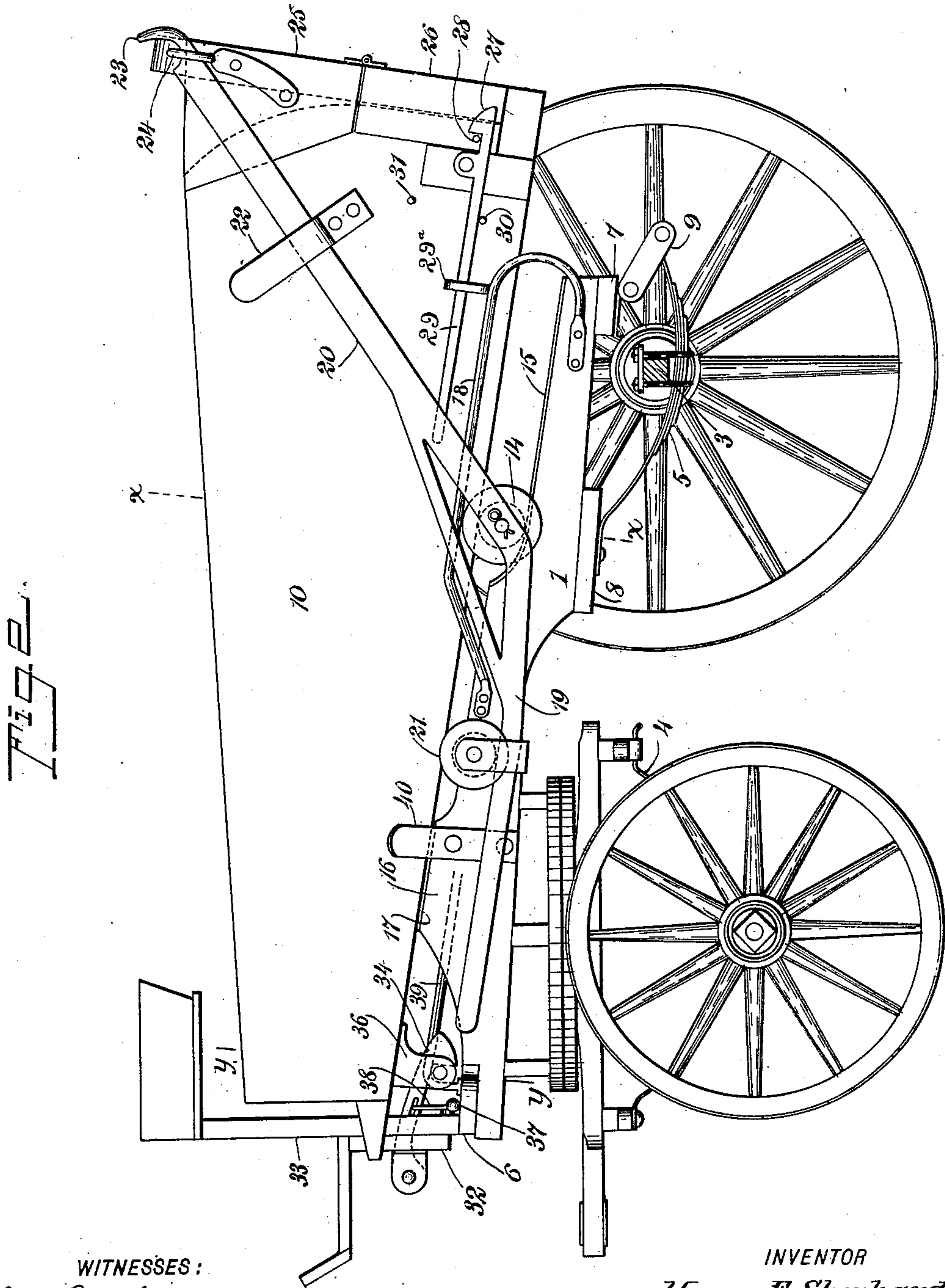
Patented May 20, 1902.

H. F. SHEPHARD.
DUMPING VEHICLE.

(Application filed Feb. 12, 1902.)

(No Model.)

4 Sheets--Sheet 2.



WITNESSES:
J. A. Rooply
C. R. Ferguson

INVENTOR
Henry F. Shephard
BY *Mum*
ATTORNEYS.

No. 700,571.

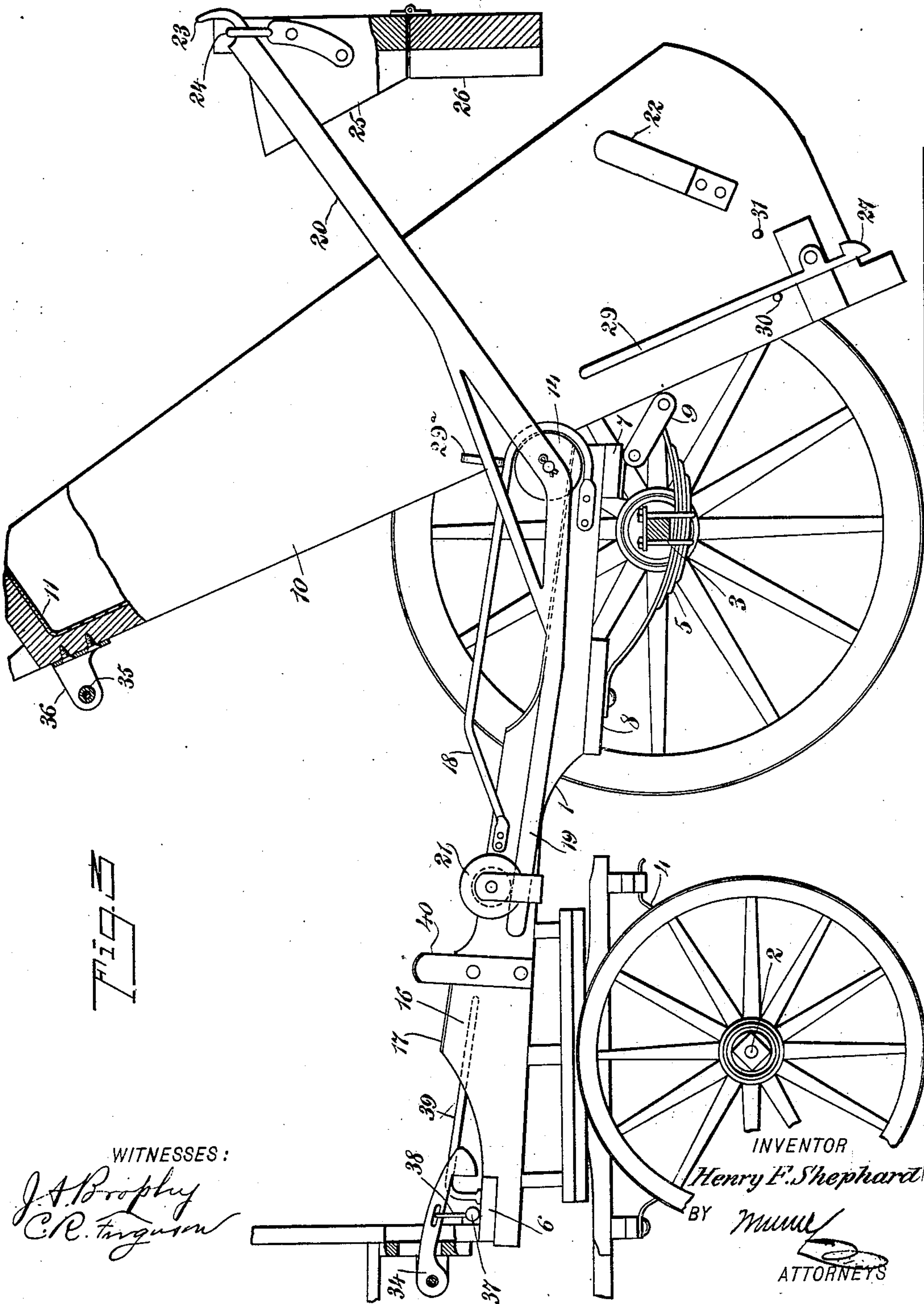
Patented May 20, 1902.

H. F. SHEPHARD.
DUMPING VEHICLE.

(Application filed Feb. 12, 1902.)

(No Model.)

4 Sheets—Sheet 3.



WITNESSES:

J. A. Brophy
C. R. Ferguson

INVENTOR

Henry F. Shephard

BY *Mum*
ATTORNEYS

No. 700,571.

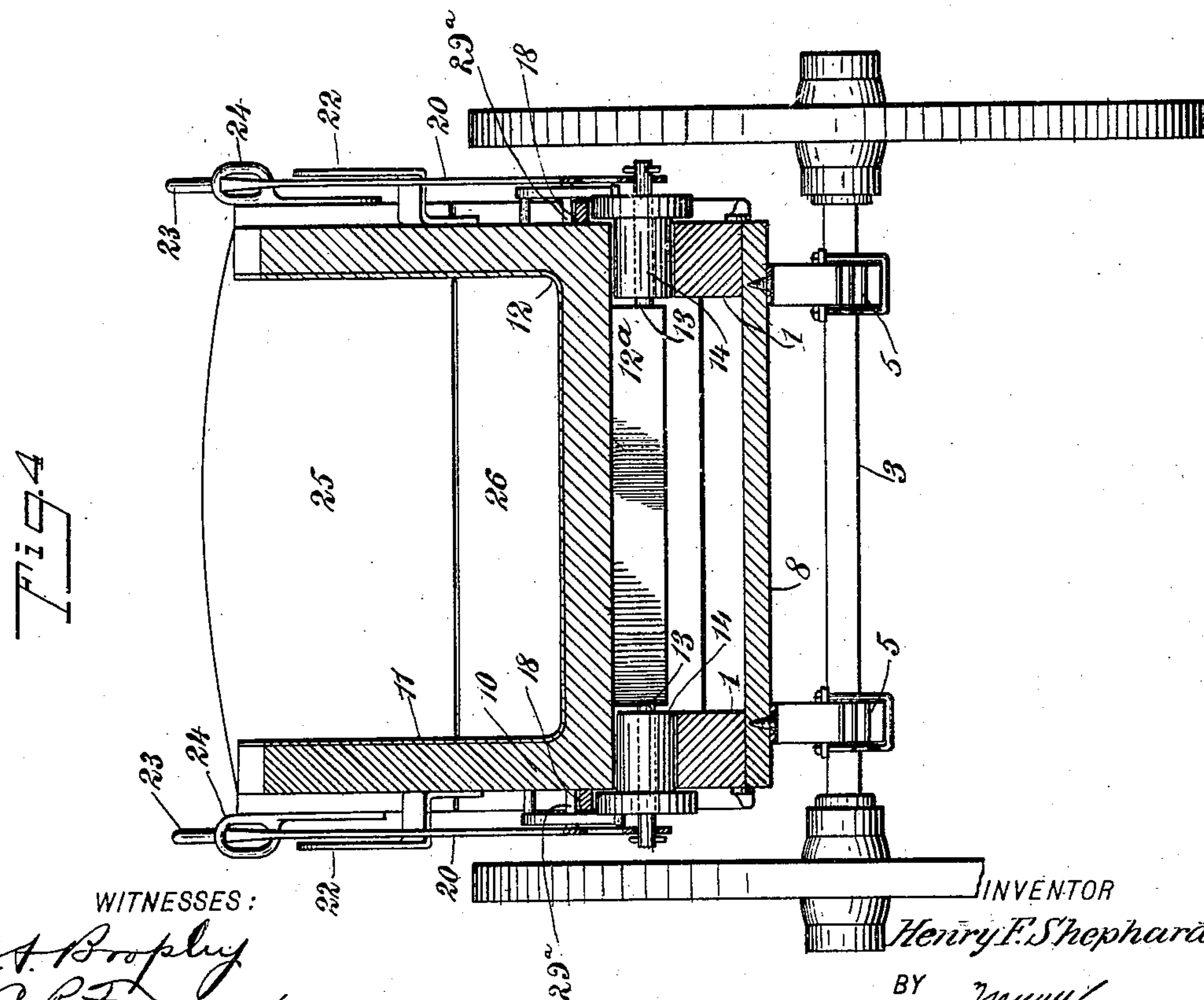
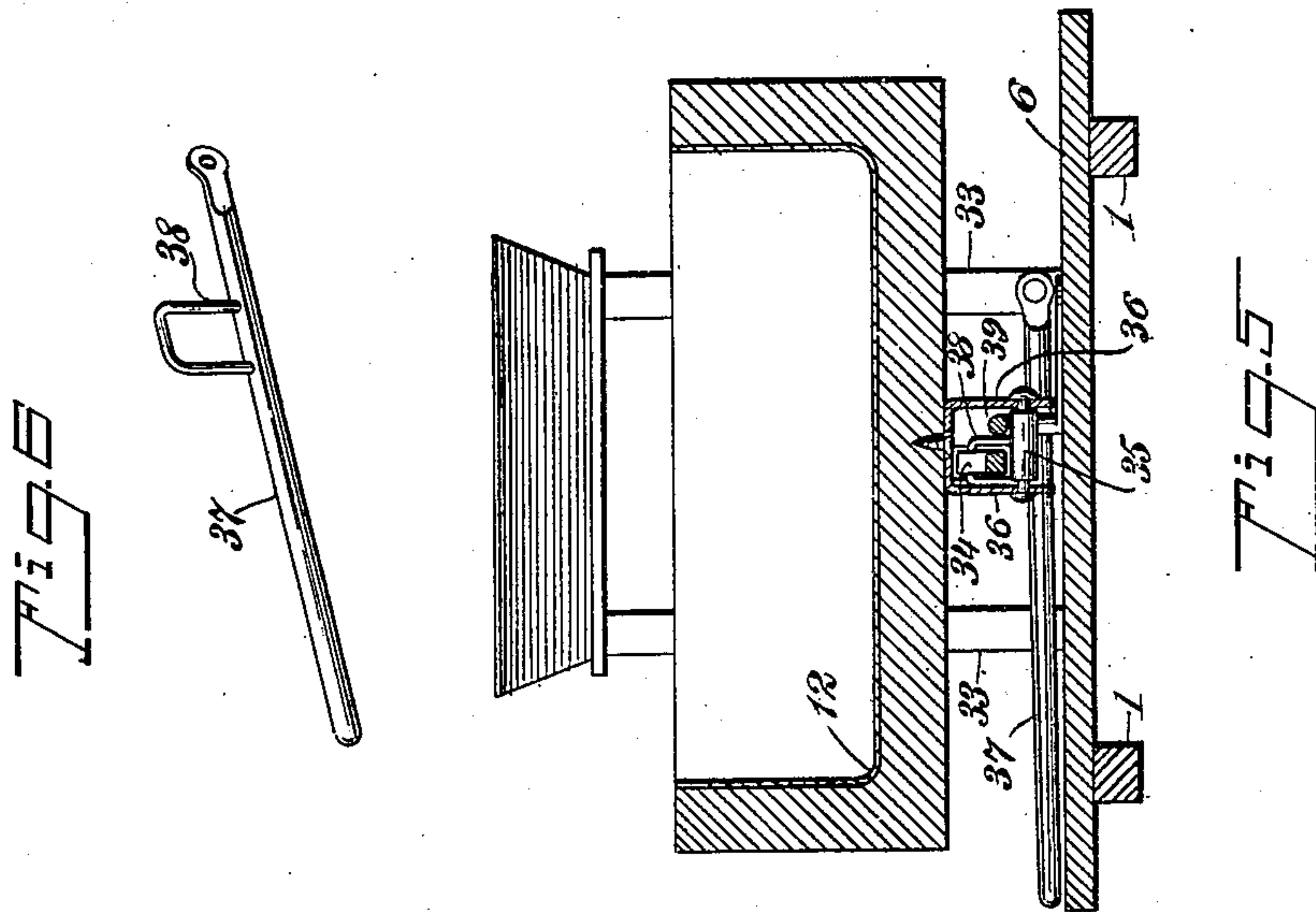
Patented May 20, 1902.

H. F. SHEPHARD.
DUMPING VEHICLE.

(Application filed Feb. 12, 1902.)

(No Model.)

4 Sheets—Sheet 4.



WITNESSES:
J. S. Propler
C. R. Ferguson

INVENTOR
Henry F. Shepard
BY *Mumford*
ATTORNEYS

UNITED STATES PATENT OFFICE.

HENRY F. SHEPHARD, OF BROOKLYN, NEW YORK.

DUMPING-VEHICLE.

SPECIFICATION forming part of Letters Patent No. 700,571, dated May 20, 1902.

Application filed February 12, 1902. Serial No. 93,666. (No model.)

To all whom it may concern:

Be it known that I, HENRY F. SHEPHARD, a citizen of the United States, and a resident of the city of New York, borough of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Dumping-Vehicle, of which the following is a full, clear, and exact description:

This invention relates to improvements in dumping wagons or trucks; and the object is to provide a vehicle with an inclined bed-frame down which when released the body will slide by gravity to dumping position, and, further, to provide a simple means for releasing the tail-board from the body while dumping.

Other objects of the invention will appear in the general description.

I will describe a dumping-vehicle embodying my invention and then point out the novel features in the appended 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 plan view of a dumping-vehicle embodying my invention. Fig. 2 is a side elevation thereof. Fig. 3 is a side elevation showing the body in dumping position. Fig. 4 is a section on the line xx of Fig. 2. Fig. 5 is a section on the line yy of Fig. 2, and Fig. 6 is a perspective view of a releasing-lever employed.

The bed-frame of the vehicle comprises the side rails 1, supported on the axles 2 3 by means of the front springs 4 and the rear springs 5. The side rails 1 are connected by a front cross-bar 6, a rear cross-bar 7, and a center cross-bar 8. The front ends of the springs 5 are connected in the usual manner to the cross-bar 8, but the rear portions of the springs are connected to the lower ends of links 9, the upper ends of which have swinging connection with the cross-bar 7. It will be noted that the links 9 are inclined downward and rearward, so as to form buffers for the body of the vehicle while dumping, as will be hereinafter described.

The bed-frame is inclined rearward and downward, and mounted to slide on the bed-frame is the body 10, which may be made of metal or wood, and in the case of wood I

preferably provide it with a lining 11 of metal, such as sheet-iron. It will be noted that at the junction of the bottom of the lining and the sides and ends the metal is curved, as indicated at 12. This lining is curved in the manner described instead of making square joints, because I find that by so curving the parts hot asphalt or similar material will more readily separate itself from the metal in dumping.

Secured to the bottom of the body is a cross-bar 12^a, having journals 13 extended from its ends, and on these journals are mounted rollers 14, which are movable on the rear portion of the side rails 1, and the top of the side rails may be provided with metal plates 15, so as to prevent undue wear. These rollers 14 are provided with annular flanges on their outer ends to engage against the outer surface of the side rails, so as to prevent lateral movement, and it will be noted that the forward portions of the side rails have raised parts 16, the upper surfaces of which are substantially on a line with the tops of the rollers 14. These raised surfaces 16 are designed to support the front portion of the body when the said body is in its normal position, as indicated in Fig. 2, and wear-plates 17 may be placed on these raised portions.

Keeper-bars 18 are attached at their ends to the side rails 1 and extend over and parallel with the bearing-surface of the said side rails, along which the rollers move. These keeper-bars at their rear ends will prevent the rollers from moving off the side rails and their upper portions will prevent upward movements of the rollers, and consequently prevent upward movement of the body. The said keeper-bars, as shown in Fig. 2, engage with the flange portions of the rollers.

Tail-board-supporting bars, consisting of horizontally-disposed portions 19 and upwardly and rearwardly inclined portions 20, are mounted to swing on the journals 13 at the outer sides of the rollers 14, the connection between the bars and the journals being substantially at the junction between the parts 19 and 20. Channeled rollers 21 are mounted on the outer sides of the side rails 1, and with the under sides of these rollers the upper surfaces of the portions 19 of the

tail-board-holding bars engage. The portions 20 of the tail-board-supporting bars are movable or held from lateral movement in guides 22, attached to the sides of the body 10, and the ends of these portions 20 are provided with hooks 23 to engage in eyes 24, attached to the ends of the tail-board near the top.

The tail-board consists of two sections 25 and 26, hinged together at the outer side. The object of this is to permit the body of the vehicle to readily pass along the inner side of the tail-board when the said body is moved to its normal position—that is, the rear ends of the sides of the body are curved—and when the body is tilted downward to a position to be slid upward on the bed-frame the said curved ends will engage with the lower section 26 of the tail-board, readily swinging it outward, and then the said section will move inward again against the end of the body, and the tail-board will be locked in this position by means of hooks 27, mounted to swing on the sides of the body. Pins 28 on the ends of the section 26 of the tail-board when the tail-board is moved to its closing position will engage the upper curved edge of the hooks, swinging the hooks downward until the said pins pass into engagement with the shoulders of the hooks, when the opposite longer weighted ends 29 will move the hooks to locking position. These ends 29 are held from moving too far downward by means of pins 30 on the body, and they are prevented from moving too far upward by means of pins 31 on the body. When the body is in normal position, the ends or extensions 29 engage in loops 29^a on the bars 18, and the length forward of the loops is about equal to the distance between the center of the rollers 14 and a vertical line from the center of the rear axle, so that the extensions will clear the loops when the rollers reach said vertical line from the axle, at which point the body begins to tilt.

Mounted to swing, as here shown, in a board 32, connected to the seat-uprights 33, is a locking latch or hook 34, designed to hold the body in its normal position by engaging with a part carried by the said body. This part consists of a roller 35, mounted in hangers 36, attached to the bottom of the body, and as the body is slid upward to its normal position the said roller will engage with the curved surface at the end of the latch, moving the latch upward until the roller passes to the hook portion of the latch. As a means for lifting the latch I employ a lever 37, which is here shown as mounted to swing on one of the seat-uprights 33. This lever passes underneath the latch, and preferably it is connected to the latch by means of a link 38, the said link passing through a slot in the latch. By this construction the lever not only serves as a means for lifting the latch, but it serves as an extra weight to hold the latch in locking position, thus preventing it from becoming disengaged from the roller when the vehicle is in motion.

Extended rearward from the front portion of the bed-frame is a retarding-bar 39. This retarding-bar is designed to engage on the upper surface of the roller 35 between the hangers 36 and prevent the dumping of the body until the body shall have reached its rearmost position.

In operation after releasing the latch from the roller 35 the body, with its load, will move rearward down the incline by gravity. When it reaches its dumping position, the roller 35 will become disengaged from the retarding-bar 39, and then the body will tilt downward, and as the tail-board-supporting bars also move rearward, but have no swinging motion, the tail-board will be held in an upper position, the movement of the body of course moving the pins of the tail-board out of engagement with the holding devices 27. As the body reaches its extreme dumping position it will strike against the links 9 or against the rear ends of the springs 5, and these buffers are provided to prevent any possible breaking of the bottom of the body or of the springs. After dumping the load the body is to be manually swung down upon the bed-frame, and when in this position the tail-board will be again engaged or locked against the rear end of the body. After this the body is to be again pushed forward, and the latch 34 will automatically lock the body in this position. As a further means to prevent lateral movement of the body relatively to the bed-frame I may employ plates 40, which are attached to the side rails 1 and extend above the same to engage against the sides of the body.

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

1. In a dumping-vehicle, a bed-frame, a body mounted to slide on the bed, a tail-board for the body, supporting-bars for the tail-board and carried by the body, and rollers on the bed with which the bars engage, substantially as specified.

2. In a dumping-vehicle, a rearwardly and downwardly inclined bed, a body, rollers carried by said body and engaging on said bed, keeper-bars attached to the bed and engaging over said rollers, a locking-latch mounted to swing on the forward end of the bed, a device carried by the body for engaging with said latch, and an operating-lever having connection with said latch, substantially as specified.

3. In a dumping-vehicle, a bed-frame comprising side rails inclined downward and rearward, a body, rollers carried by said body and engaging on said side rails, a tail-board, angular supporting-bars for said tail-board, the said bars being mounted to swing on the journals of the said rollers, and rollers mounted on said side rails and engaging with the forward portions of said bars, substantially as specified.

4. In a dumping-vehicle, a downwardly and

rearwardly inclined bed, a body, rollers carried by said body and engaging on said bed, the said rollers having flanges on their outer sides to engage against the outer sides of the bed, a tail-board consisting of two hinged sections, angular supporting-bars for said tail-board, the said bars being mounted on the journals of the rollers, rollers on the bed for engaging with the forward portions of said bars, and locking devices for the tail-board, substantially as specified.

5. In a dumping-vehicle, a bed inclined downward and rearward, a body, rollers carried by said body and engaging on the bed, a tail-board, angular supporting-bars for said tail-board, the said bars being mounted on the journals of the rollers, rollers mounted on the bed for engaging the forward portions of the bars, pins on the ends of the tail-board, and weighted hooks mounted on the body for engaging with said pins, substantially as specified.

6. In a dumping-vehicle, a bed inclined downward and rearward, a body mounted to slide on said bed, a locking-latch at the forward end of the bed, a roller carried by the body for engaging with said locking-latch, and a retarding-bar attached to the front por-

tion of the bed and engaging with the upper side of said roller, substantially as specified. 30

7. In a dumping-vehicle, a bed, a body mounted to slide on said bed and to tilt on the same, springs supporting the rear portion of the bed, the said springs being extended rearward to form buffers for the body when moved to its dumping position, and link connections between the rear ends of the springs and the bed, substantially as specified. 35

8. In a dumping-vehicle, a downward and rearwardly inclined bed-frame comprising side rails, a body, rollers carried by said body for engaging on the said side rails, the forward portions of the side rails being extended upward to a point substantially on a line with the tops of the rollers, a tail-board, means for locking the tail-board to the body, and means movable with the body for disengaging the tail-board from the locking means, substantially as specified. 40 45

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses. 50

HENRY F. SHEPHARD.

Witnesses:

JNO. M. RITTER,
C. R. FERGUSON.