

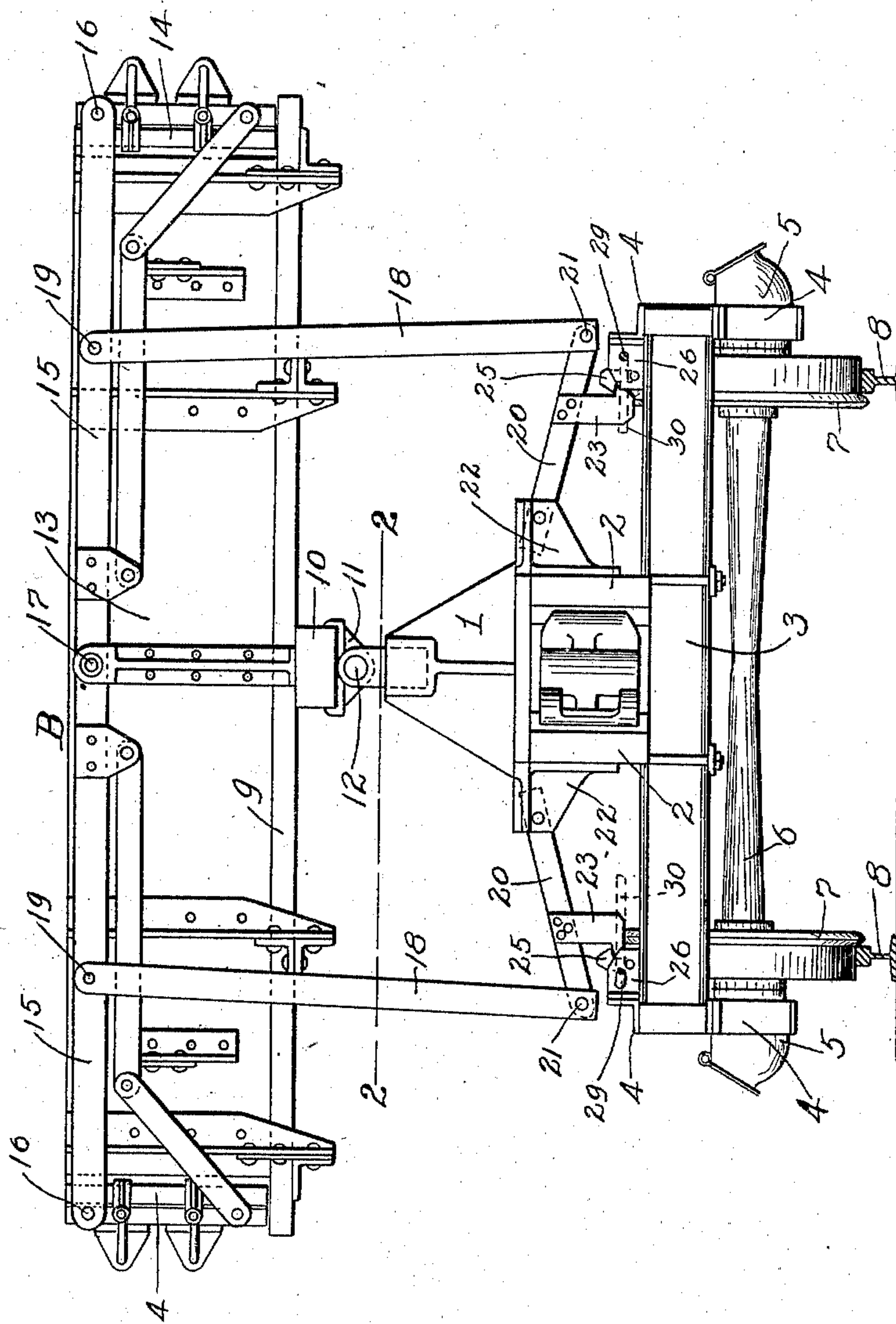
T. P. ROBERTS.  
DUMPING CAR.  
APPLICATION FILED AUG. 14, 1908.

966,860.

Patented Aug. 9, 1910.

2 SHEETS—SHEET 1.

Fig. 1.



Witnesses,  
Carrie R. Fry  
Wm. Haley-

Inventor,  
Thomas P. Roberts  
By Cyrus K. E. Co.  
Attorney

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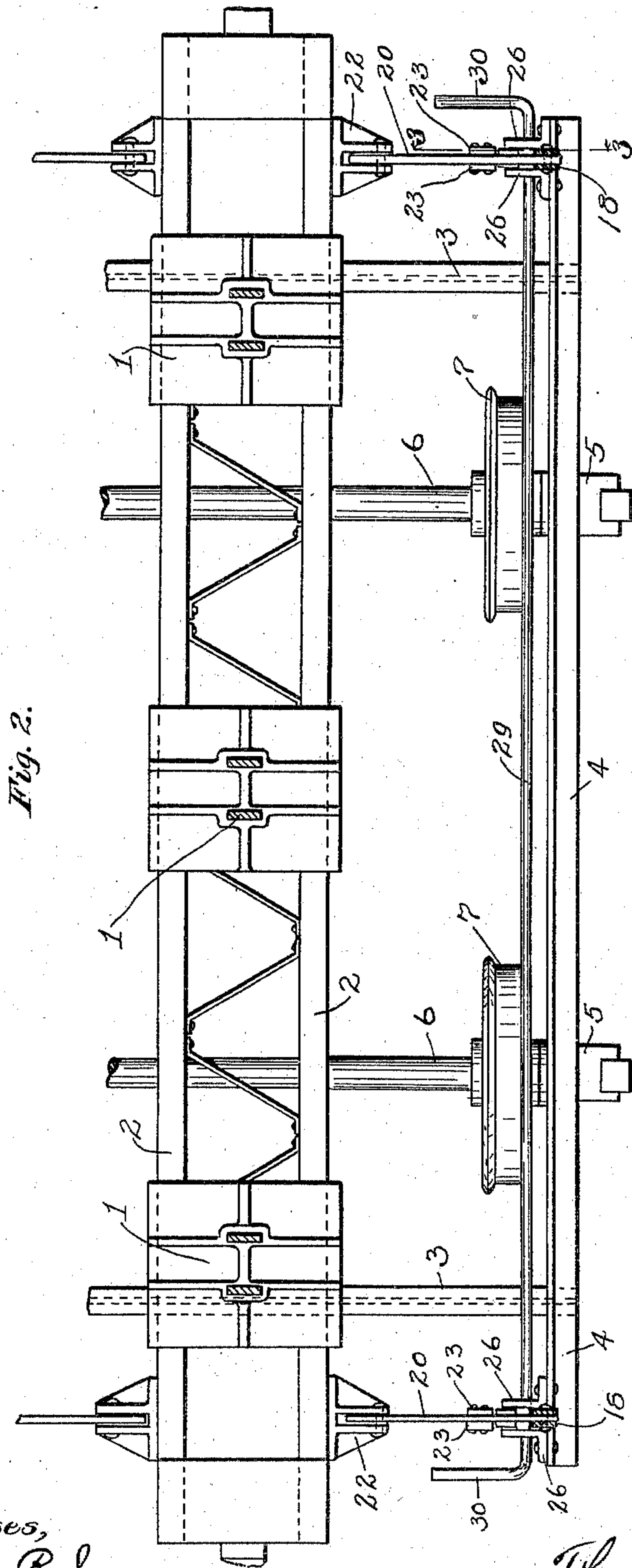


Fig. 2.

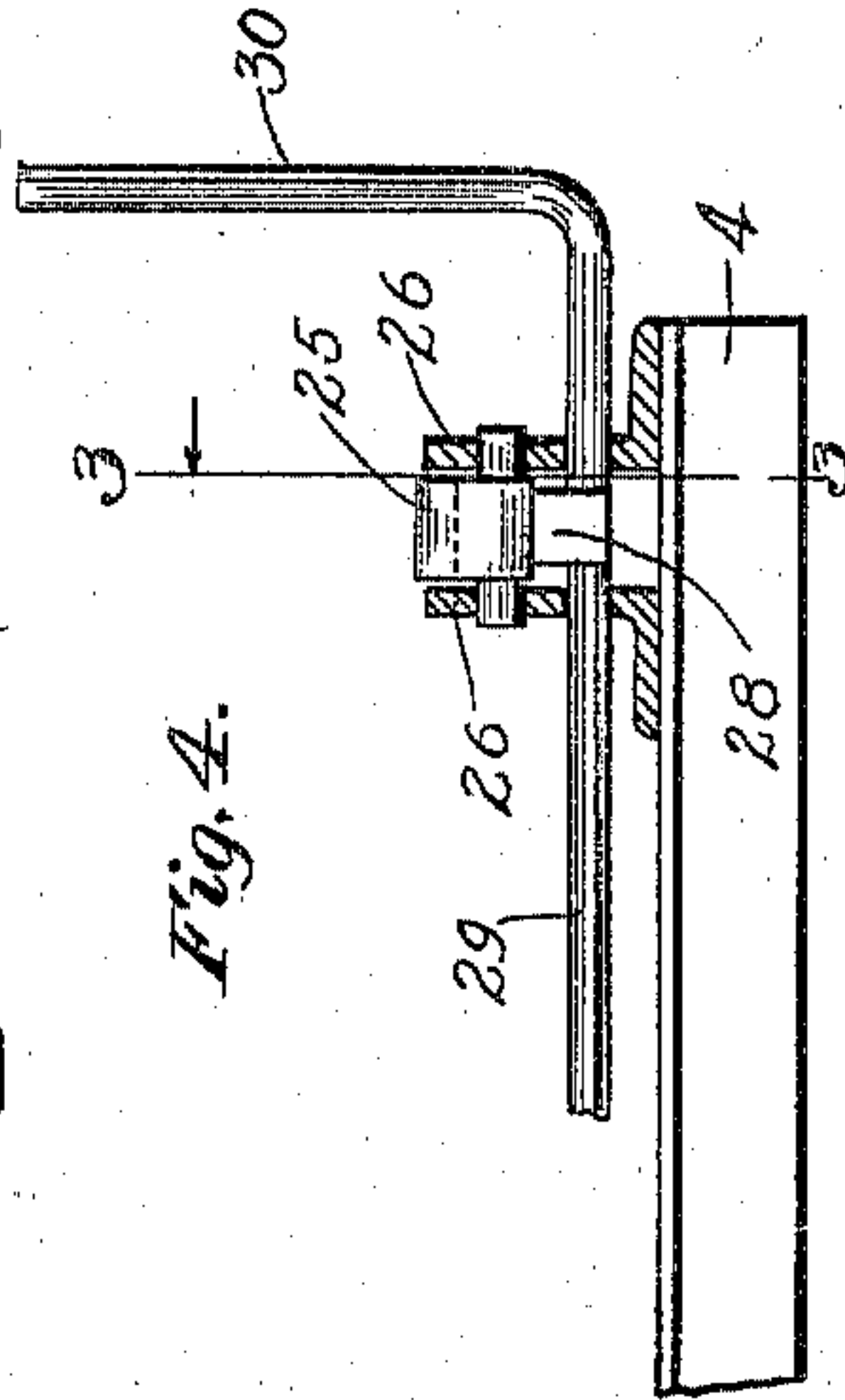


Fig. 4.

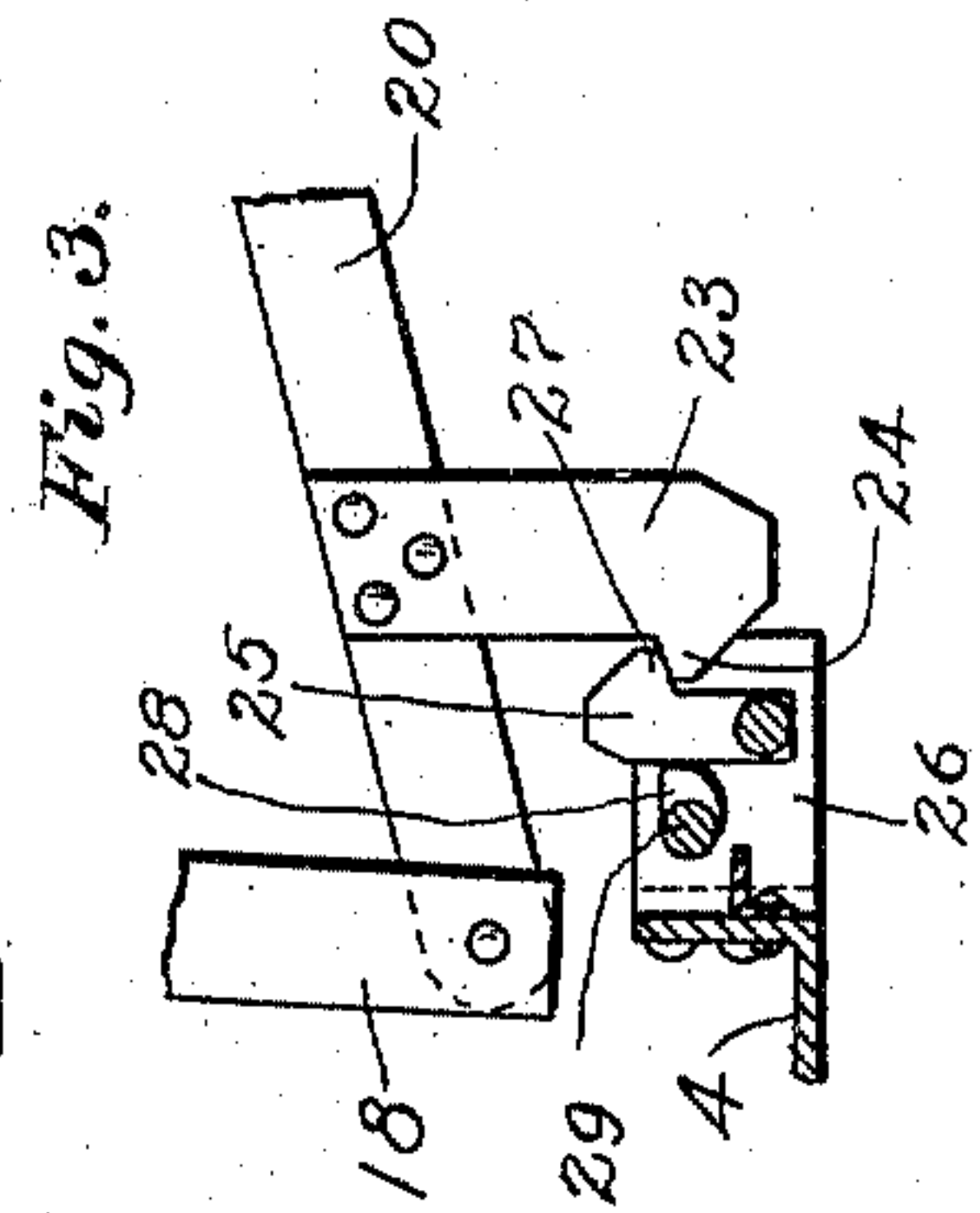


Fig. 3.

Witnesses,  
Carrie R. Fry  
Wm. W. Haley

Inventor,  
Thomas P. Roberts  
By Cyrus K. E. W.  
Attorney.



# UNITED STATES PATENT OFFICE.

THOMAS P. ROBERTS, OF KNOXVILLE, TENNESSEE.

## DUMPING-CAR.

966,860.

Specification of Letters Patent.

Patented Aug. 9, 1910.

Application filed August 14, 1908. Serial No. 448,452.

*To all whom it may concern:*

Be it known that I, THOMAS P. ROBERTS, a citizen of the United States, residing at Knoxville, in the county of Knox and State of Tennessee, have invented a new and useful Improvement in Dumping-Cars, of which the following is a specification, reference being had to the accompanying drawing.

My improvement relates particularly to dumping cars comprising a body adapted to be tilted laterally and having a door at each side to be opened for the lateral discharge of the load from such body.

The object of the invention is to produce an efficient and simple mechanism for releasably holding said body in the horizontal position.

The improvement is specially applicable to dumping cars of the type illustrated and described in Letters-Patent of the United States, No. 834,090, granted to William W. Wallace, October 23, 1906. In the car described by said patent, the body is held in the horizontal position by upright chains applied by their upper ends to the car body near the side of the latter and by their lower ends to the truck frame, said chains being made releasable.

In the accompanying drawings, Figure 1 is an end elevation of a car embodying my improvement; Fig. 2 is a section on the line 2—2 of Fig. 1; Fig. 3 is a section on the line 3—3 of Figs. 2 and 4; Fig. 4 is an enlarged sectional detail of the lower right hand portion of Fig. 2.

Referring to said drawings, 1, 1 are upright bearing blocks arranged in a horizontal line extending lengthwise over the middle longitudinal line of the truck. Said bearing blocks rest upon longitudinal beams, 2, 2, and said beams are supported upon cross beams, 3, 3. To the outer ends of said cross beams are secured longitudinal plates, 4, and said plates support axle boxes, 5, which receive the ends of the axles, 6, and said axles are surrounded near each end by wheels, 7, resting on the rails, 8. The car body, B, is supported pivotally on said bearing block so that said body may tilt toward either side of the truck. Along the bottom, 9, of the car body is a sill, 10, parallel to the length of the car and midway between its sides. Above each bearing block, 1, a bearing block, 11, is applied to the lower face of said sill, 10, (only one of said blocks appears

in the drawings, in Fig. 1). Each such block overlaps the adjacent portion of the bearing block, 1, and a bolt, 12, extends horizontally through the bearings of said two blocks and is secured in any suitable manner.

The body, B, comprises a relatively stationary floor or bottom, 9, the relatively stationary end walls, 13, (only one appears in the drawings), and the shiftable side walls or doors, 14. As these doors are preferably duplicates, only one need be described in detail, and as the mechanism at one end of each door is a duplicate of the mechanism at the other end of the same door, the mechanism at only one end need be described in detail. Obviously, the car may have only one door. Each door is supported by a bar, 15, hinged at 16 to the door near the upper corner of the latter in any desired manner and having its inner end hinged at 17 to the middle of the car body to permit movement in a plane parallel to the end wall of the car.

Between the ends of each bar, 15, an upright lifting member, 18, is hinged by its upper end to the bar, 15, by a horizontal bolt, 19, and extends thence downward to a point a little above the end of the horizontal plate, 4, where it is hinged to one end of a link, 20, by a horizontal bolt, 21. The opposite end of said link, 20, is hinged to a bracket, 22, which is secured to the adjacent longitudinal beam, 2.

When the car body is tilted, the lifting member, 18, at the side of the car which goes downward descends until its lower end bears upon the adjacent longitudinal plate, 4. Then, while the car body goes farther, said member can descend no farther, and it then holds the horizontal bar, 15, from descending farther, whereby the door supported by said bar is also held against further descent.

To the link, 20, near the lower end of the lifting member, 18, and near the plate, 4, is immovably secured a downward-directed arm, 23. At its lower end said arm has a lateral extension or shoulder, 24. In front of said shoulder is an upright, rocking member, 25, the lower end of which is hinged between two brackets, 26, secured to the adjacent plate, 4. On the upper portion of said member, 25, is a lateral extension, 27, normally resting upon the lateral extension or shoulder, 24, of the arm, 23. When the member, 25, is in said position, as will be readily understood from an



inspection of the drawings, the arm, 23, the link, 20, the lifting member, 18, and the side of the car body to which said member is applied can not rise. The opposite side of the car body being similarly secured, said body is held immovably in the horizontal position. Said rocking member, 25, is held in such position by a cam, 28, secured immovably on a rock shaft, 29, which extends through the brackets, 26, parallel to the adjacent plate, 4, from one end to the other end of the car truck. At each end, said rock shaft has a lateral arm, 30, extending horizontally toward the middle line of the car truck when the cam, 28, is wedged between said shaft and the member, 25. Said arms are held in such horizontal position by gravity. Hence the member, 25, and the arm, 23, remain interlocked until the rock shaft is turned by the raising of said arms, whereby the cam, 28, is raised out of engagement with the member, 25. Then said member is free to be pushed aside by the shoulder, 24, on the arm, 23. It will be observed that by the use of the rock shaft, the two cams at the same side of the car may be engaged or disengaged simultaneously.

The downward-directed arm, 23, and the rocking member, 25, constitute a pair of interlocking members, one of which is laterally movable, and the cam, 28, constitutes a stop device for holding said interlocking members in engagement with each other or for holding said laterally movable member in engagement with the other of said interlocking members.

I claim as my invention:—

1. In a dumping car comprising a truck and a tiltable body, the combination with said truck and said body, of two interlocking members at each end of the car, and a stop mechanism extending from the interlocking members at one end of the car to the interlocking members at the other end of the car for holding said members in engagement with each other, substantially as described.

2. In a dumping car comprising a truck and a tiltable body, the combination with said truck and said body, of a pair of interlocking members at each end of the car, one member of each pair being laterally movable, and a stop mechanism extending from one of said pairs of interlocking members to the other for holding said laterally movable member of each pair in engagement with its companion member.

3. In a dumping car comprising a truck and a tiltable body, the combination with said truck and said body, of two interlocking members, a stop device for holding said members in engagement with each other, and a rock shaft controlling said stop device.

4. In a dumping car comprising a truck and a tiltable body, the combination with

said truck and said body, of two interlocking members, a stop device for holding said members in engagement with each other, and a rock shaft supporting said stop device, substantially as described.

5. In a dumping car comprising a truck and a tiltable body, the combination with said truck and said body, of two interlocking members, one of which is laterally movable, a stop device for holding said members in engagement with each other, and a rock shaft supporting said stop device, substantially as described.

6. In a dumping car comprising a truck and a tiltable body, the combination with said truck and said body, of two interlocking members, one of which is laterally movable and the other of which is rigid, a stop device for holding said members in engagement with each other, and a rock shaft supporting said stop device, substantially as described.

7. In a dumping car comprising a truck and a tiltable body, the combination with said truck and said body, of a pair of interlocking members located at each end of said car, and a stop device for holding the members of each pair in engagement with each other, and a rock shaft supporting said stop devices, substantially as described.

8. In a dumping car comprising a truck and a tiltable body, the combination with said truck and said body, of two interlocking members, one of which is laterally movable, a stop device for holding said laterally movable member in engagement with the other of said interlocking members, and a rock shaft supporting said stop device, substantially as described.

9. In a dumping car comprising a truck and a tiltable body, a pair of interlocking members located at each end of the car, one member of each of said pairs being supported by said body and the other by said truck, and the latter member being laterally movable, and a stop device extending from one of said laterally movable members to the other for holding them in engagement with the companion members on said body.

10. In a dumping car comprising a truck and a tiltable body having a swinging side door, the combination with said truck and said body, of members for controlling said door, two interlocking members one of which is supported by said door-controlling members and the other of which is supported by said truck, and a stop device for holding said interlocking members in engagement with each other, substantially as described.

11. In a dumping car comprising a truck and a tiltable body having a swinging side door, the combination with said truck and said body, of members for controlling said door, two interlocking members one of which is supported by said door-controlling mem-

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bers and the other of which is supported by said truck and laterally movable, and a stop device for holding the second of said interlocking members in engagement with the first of said interlocking members, substantially as described.

12. In a dumping car comprising a truck and a tiltable body, the combination with said truck and said body, of two interlocking members and a cam for holding said members in engagement with each other, substantially as described.

13. In a dumping car comprising a truck and a tiltable body, the combination with said truck and said body, of two pairs of interlocking members, a rock shaft, and two cams located upon said rock shaft for holding said interlocking members in engagement with each other, substantially as described.

14. In a dump car, the combination with the frame and tilting body, of a hook member depending from said body, a dog on said frame engaging said hook, and means for wedging said dog to draw upon said hook and lock the same.

15. In a dump car, the combination with a frame and a tilting body, of depending hooks upon said body on opposite sides of the center thereof, dogs for engaging said hooks, and means for locking said dogs and causing the same to draw upon said hooks.

16. In a dump car, the combination with a frame and a tilting body mounted thereon, of a hook depending from said body, and locking means upon said frame for said hook, having a drawing engagement therewith.

17. In a dump car, the combination with a frame and a tilting body mounted thereon, of a hook depending from said body, a dog pivotally mounted on said frame and engageable with said hook, and a rockable member having a wedging locking engagement with said dog whereby the latter is caused to draw upon said hook.

18. In a dump car, the combination with a frame and a tilting body mounted thereon, of hooks depending from said body at the opposite ends thereof, dogs pivotally mounted upon said frame, and adapted to engage with said hooks, a rock shaft extending longitudinally of said frame, and fingers on said rock shaft having a wedge engagement with said dogs and constituting locking detents therefor.

In testimony whereof I have signed my name, in presence of two witnesses, this twenty-seventh (27th) day of July, in the year one thousand nine hundred and eight.

THOMAS P. ROBERTS.

Witnesses:

R. L. SITES,  
E. R. OATES.