

No. 690,877.

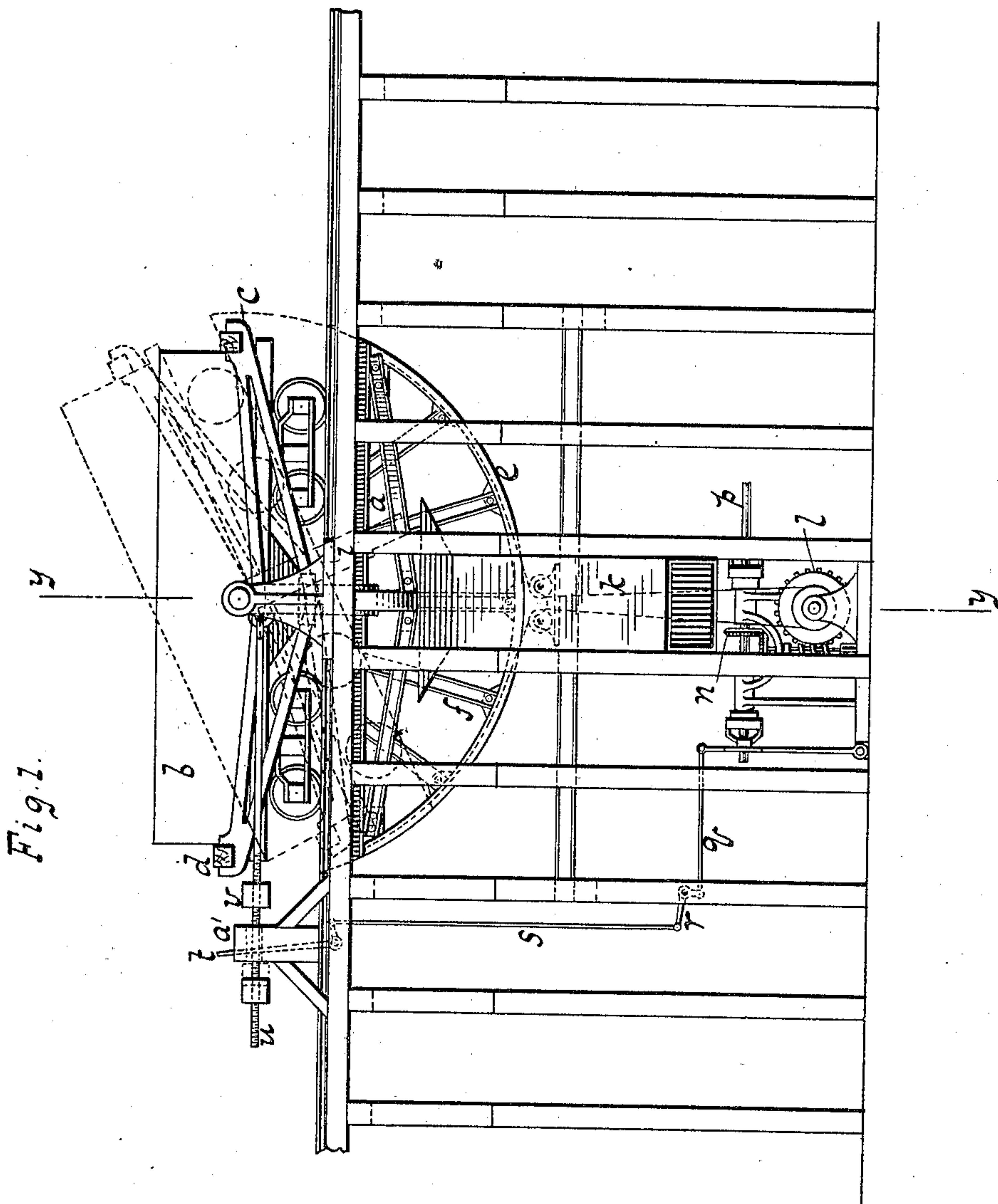
Patented Jan. 7, 1902.

J. M. RIDDLE.  
MECHANISM FOR EMPTYING CARS.

(Application filed May 1, 1901.)

(No Model.)

3 Sheets—Sheet 1.



WITNESSES:

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INVENTOR

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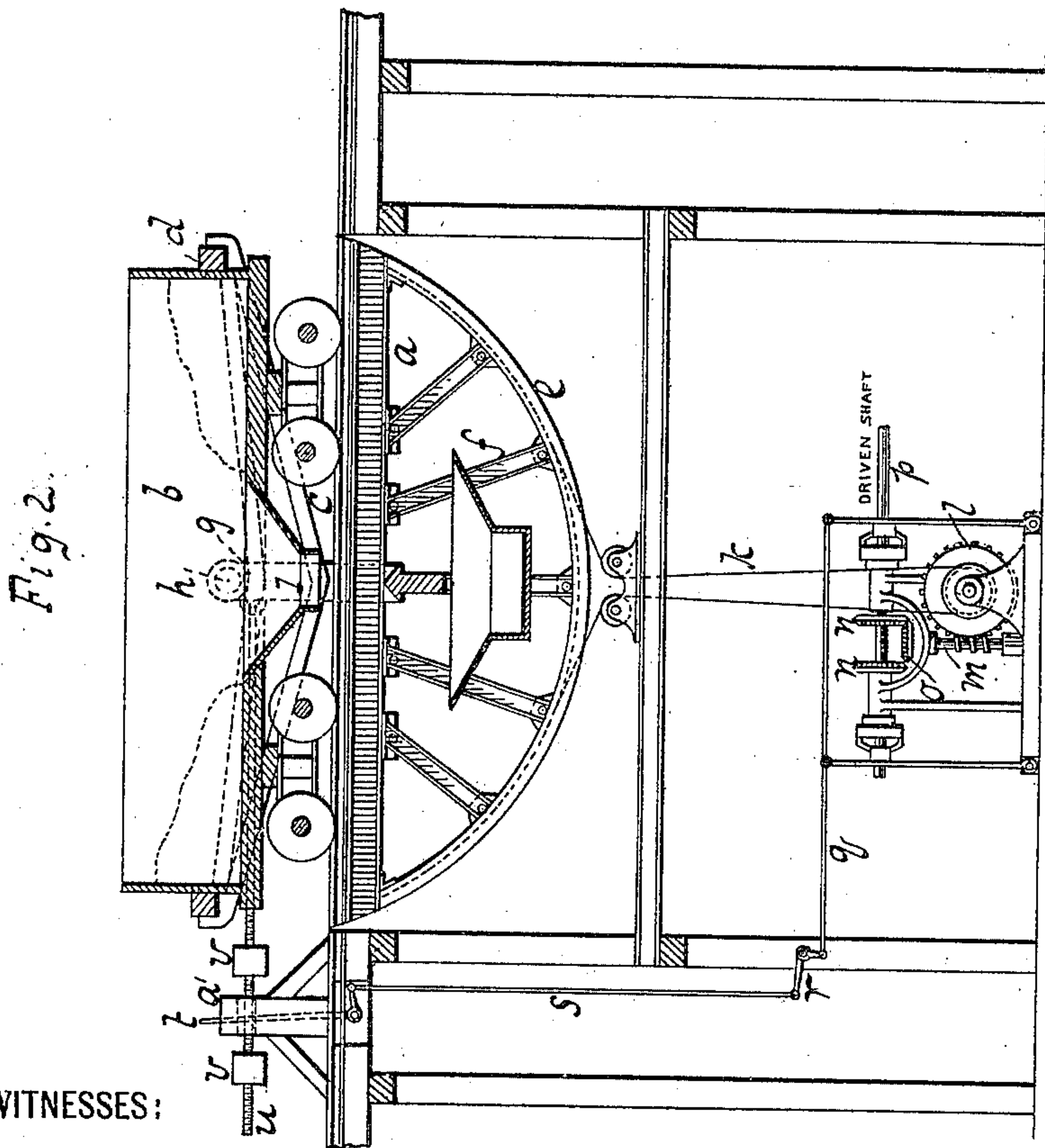
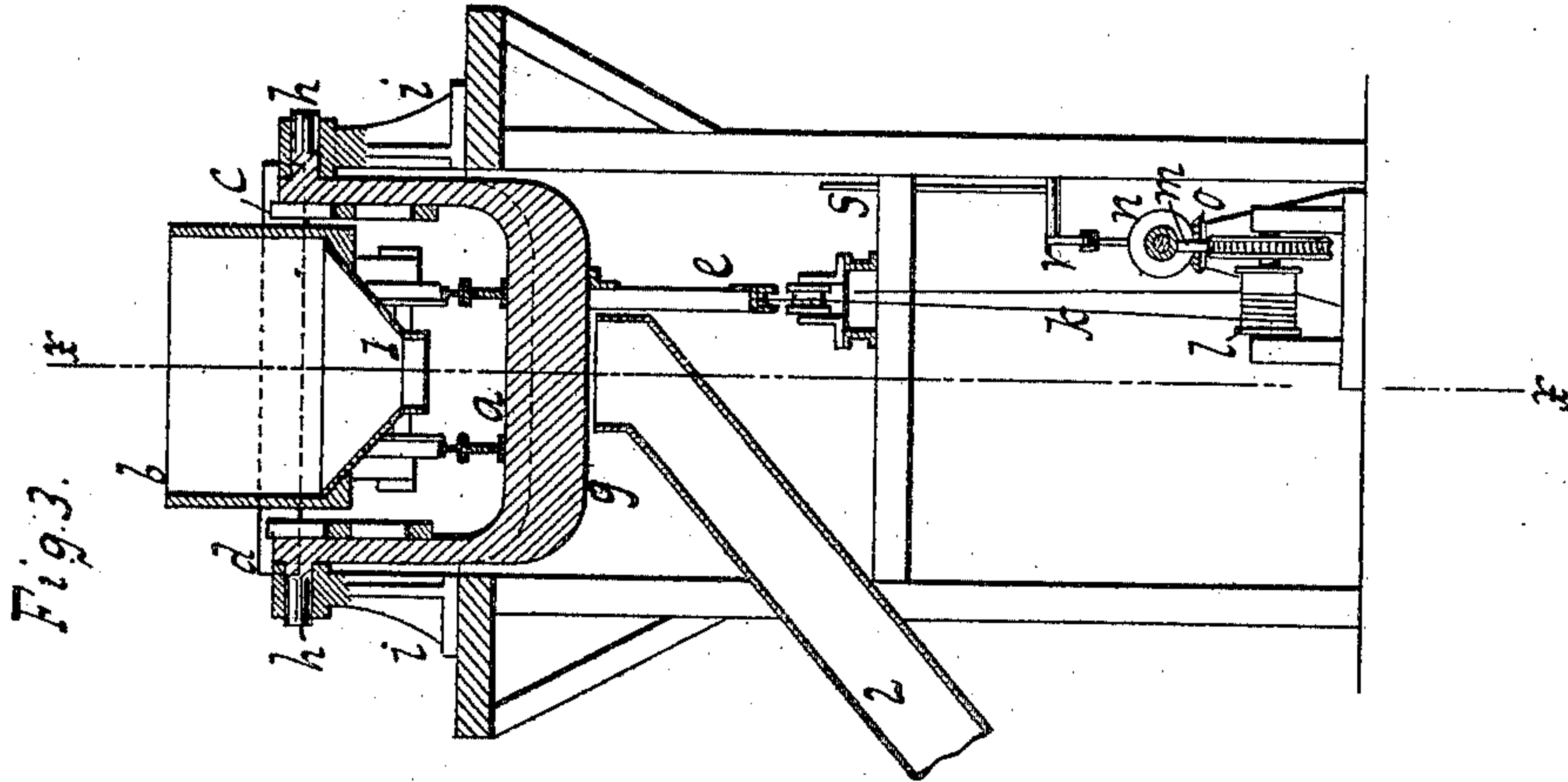
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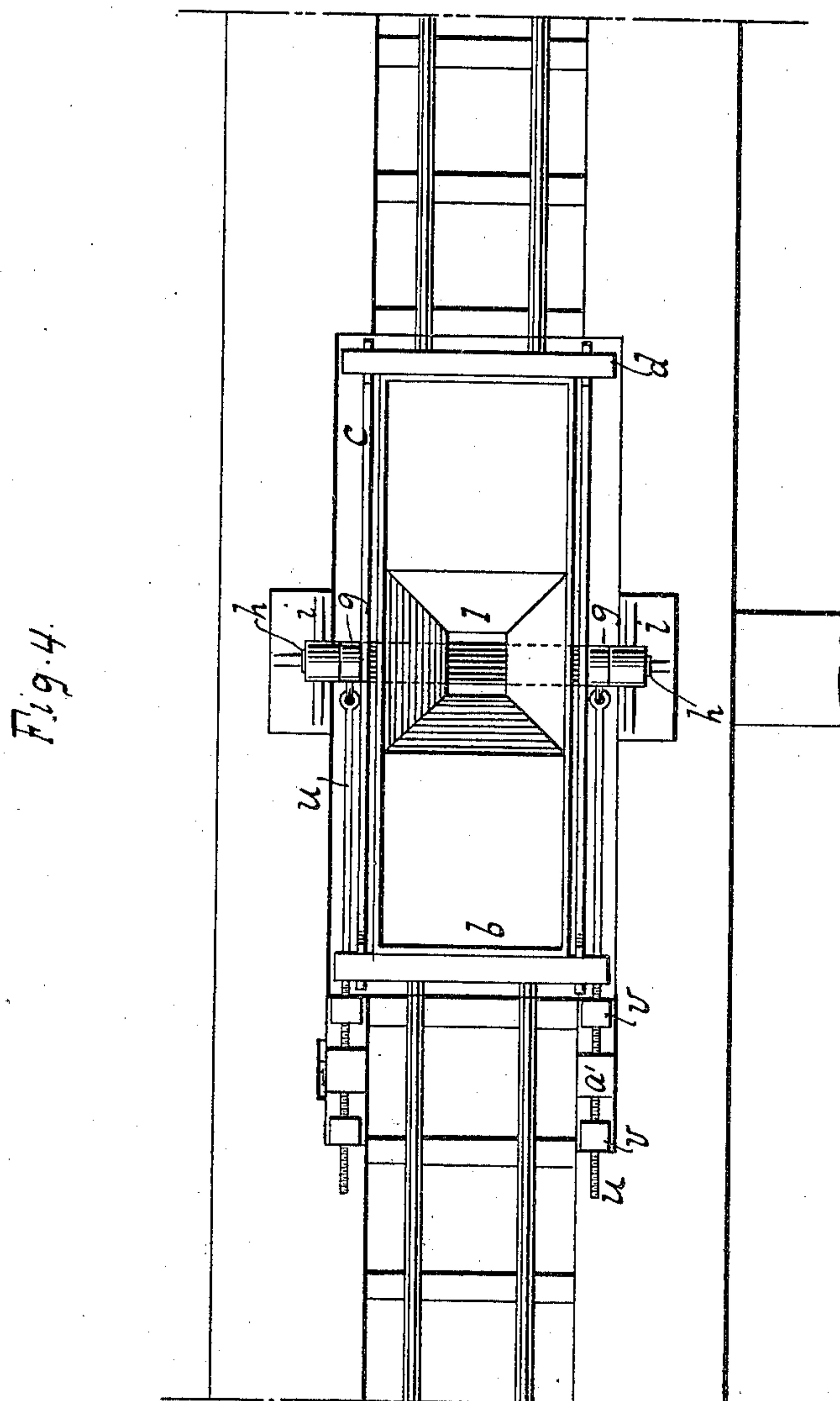
**J. M. RIDDLE.**

## MECHANISM FOR EMPTYING CARS.

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# UNITED STATES PATENT OFFICE.

JAMES M. RIDDLE, OF NEW YORK, N. Y.

## MECHANISM FOR EMPTYING CARS.

SPECIFICATION forming part of Letters Patent No. 690,877, dated January 7, 1902.

Application filed May 1, 1901. Serial No. 58,328. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES M. RIDDLE, a citizen of the United States, residing at Manhattan borough, New York city, in the county and State of New York, have invented new and useful Improvements in Emptying Cars, of which the following is a specification.

By means of an oscillating table or platform cars which are to be emptied of their contents—as, for example, coal or the like—can be tilted as required to bring the contents to the outlet.

The invention is set forth in the following specification and claims and illustrated in the annexed drawings, in which—

Figure 1 is a side elevation of a dumping or emptying device. Fig. 2 is a sectional side elevation of Fig. 1 in section along *xx*, Fig. 3. Fig. 3 is an end elevation of Fig. 1, sectioned along *yy*, Fig. 1. Fig. 4 is a plan view of the device.

In the drawings the letter *a* indicates a table or platform adapted to support a track or rails onto which can be run a car or vehicle *b*. The risers *c* can be made to receive a cross-beam or locking-pieces *d*, which, lying across the ends of the car, confine the latter, so that it cannot run off the support *a*. These locks *d* can be readily laid into notches or seats arranged therefor in risers *c*. The table *a* has a segment *e* braced or connected thereto by the spoke pieces or braces *f*, and the table (or its arms *g*) is supported in oscillating condition by pivot or gudgeons *h*, resting on blocks or arms *i*, carried by a suitable foundation or framework. Flexible connections or chains *k*, connected with segment *e*, are wound about drum *l*, so that by turning the latter one way or another opposite ends of the platform or car are elevated. This drum can be turned or set by a worm-shaft *m*, whose gear *o* is driven by one or another of gears *n* as the drum is to be set one way or another. The gears *n* are shown on shaft *p*, suitably driven by an engine or source of power. The gears are normally loose from the shaft; but as one gear or the other is coupled to the shaft the worm-shaft and drum are set one way or another. The couplings can be alternately moved into or out of clutch

by a rod or shifter *q*, connected by lever *r* and link *s* with lever or handle *t*, placed in reach of an attendant.

To prevent excessive rock or tilting of the platform, a link or rod *u*, with nuts or stops *v*, is guided through fixed riser or stop *a'*. As one shoulder or stop *v* or another comes against the post the tilt of the car is arrested. The inner end of rod *u* is connected to arm *g* upon or adjacent to the gudgeons, so that as the arms *g* swing the rod slides back and forth. This rod, as seen in the plan view of Fig. 4, is guided through or can slide back and forth in the post *a'*; but the shoulders or enlargements *v*, being incapable of slipping through this post, will arrest or confine the reciprocation of rod *u* within a certain limit.

The car is shown with an outlet or discharge 1, as known, and from which material can pass into a chute 2 to be led to a vessel or other point. After the main portion has discharged any coal or matter resting at one end or another of the car can, by raising such end, be caused to roll to or drop out of the exit 1 into the chute. The oscillating table allows tilting of the cars containing coal or other material to such angle or degree as suffices for causing the same to run or pass from either end of the car to and out of the outlet.

What I claim as new, and desire to secure by Letters Patent, is—

1. A device for emptying cars comprising an oscillating table or support, mechanism for tilting the support in one direction or another, and a stop for limiting the tilt or inclination of the support, said stop consisting of a rod connected to the table so as to reciprocate or slide back and forth on the swing or tilt of the table, a post through which the movable rod is guided, and stops or enlargements on the rod made to impinge against the post for arresting or limiting the slide or play of the rod substantially as described.

2. A tilting table or support provided with a segment, a flexible connection secured along the segment for tilting the support, a drum and driving mechanism for actuating the connection, and gear-wheels and clutch mechanism for driving the drum in different directions substantially as described.

3. A rail or car supporting table having a  
segment, a pivot or gudgeons from which the  
table is movably suspended, a flexible con-  
nection or chain connected to the segment, a  
5 drum made to engage the chain for tilting the  
table, mechanism for rotating the drum in  
opposite directions, a stop-arm provided with  
shoulders or stops, and a riser or post for en-  
gaging the stops to limit the motion of the

stop-arm and the tilt of the table substantially as described.

In testimony whereof I have hereunto set  
my hand in the presence of two subscribing  
witnesses.

JAMES M. RIDDLE.

Witnesses:

CHAS. E. POENSGEN,  
E. F. KASTENHUBER.