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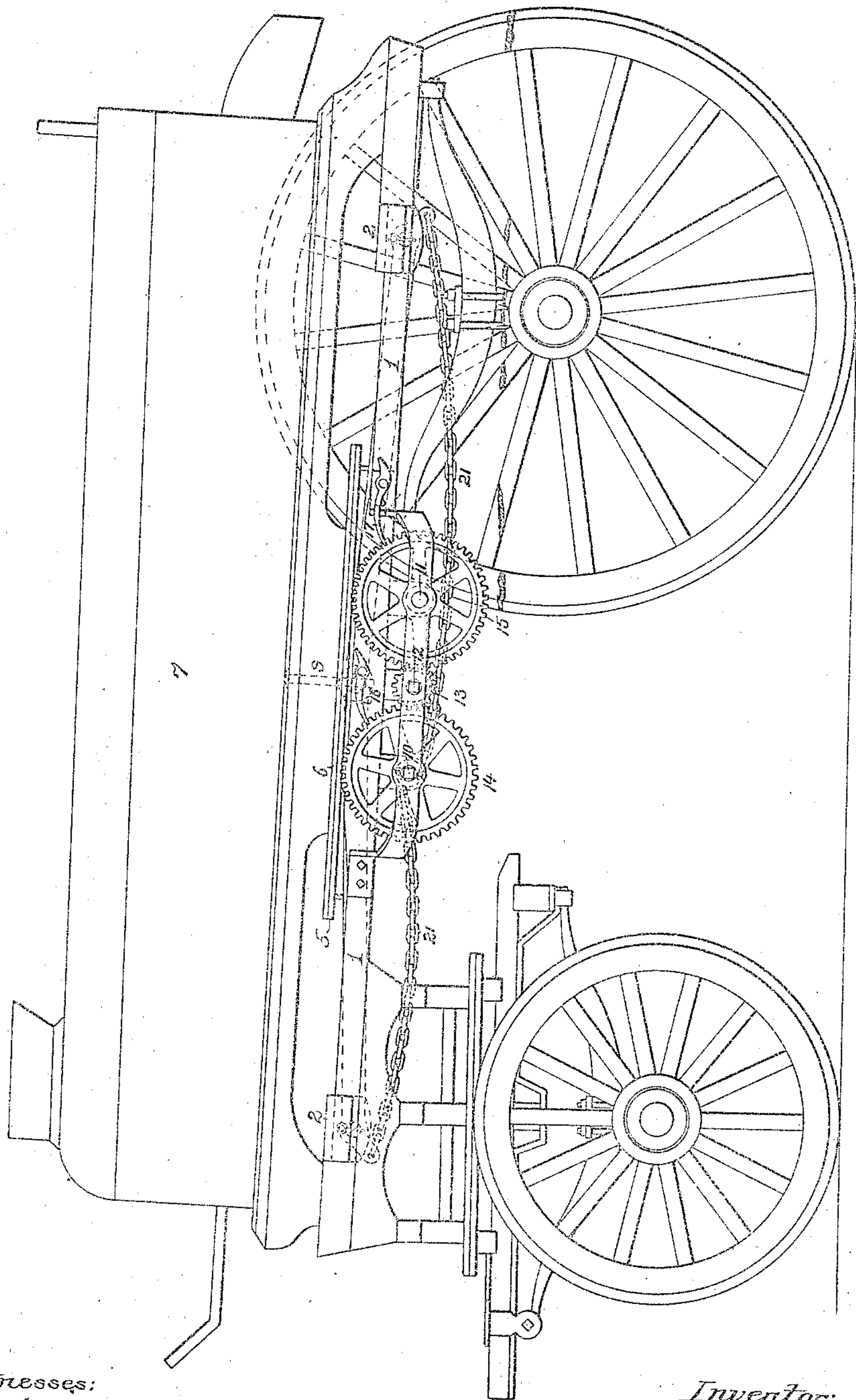
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S. STURGIS.  
DUMPING WAGON.

No. 604,644.

Patented May 24, 1898.

FIG. 1.



Witnesses:  
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J. E. Bechtold

Inventor:  
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by his Attorneys,  
Howson & Howson

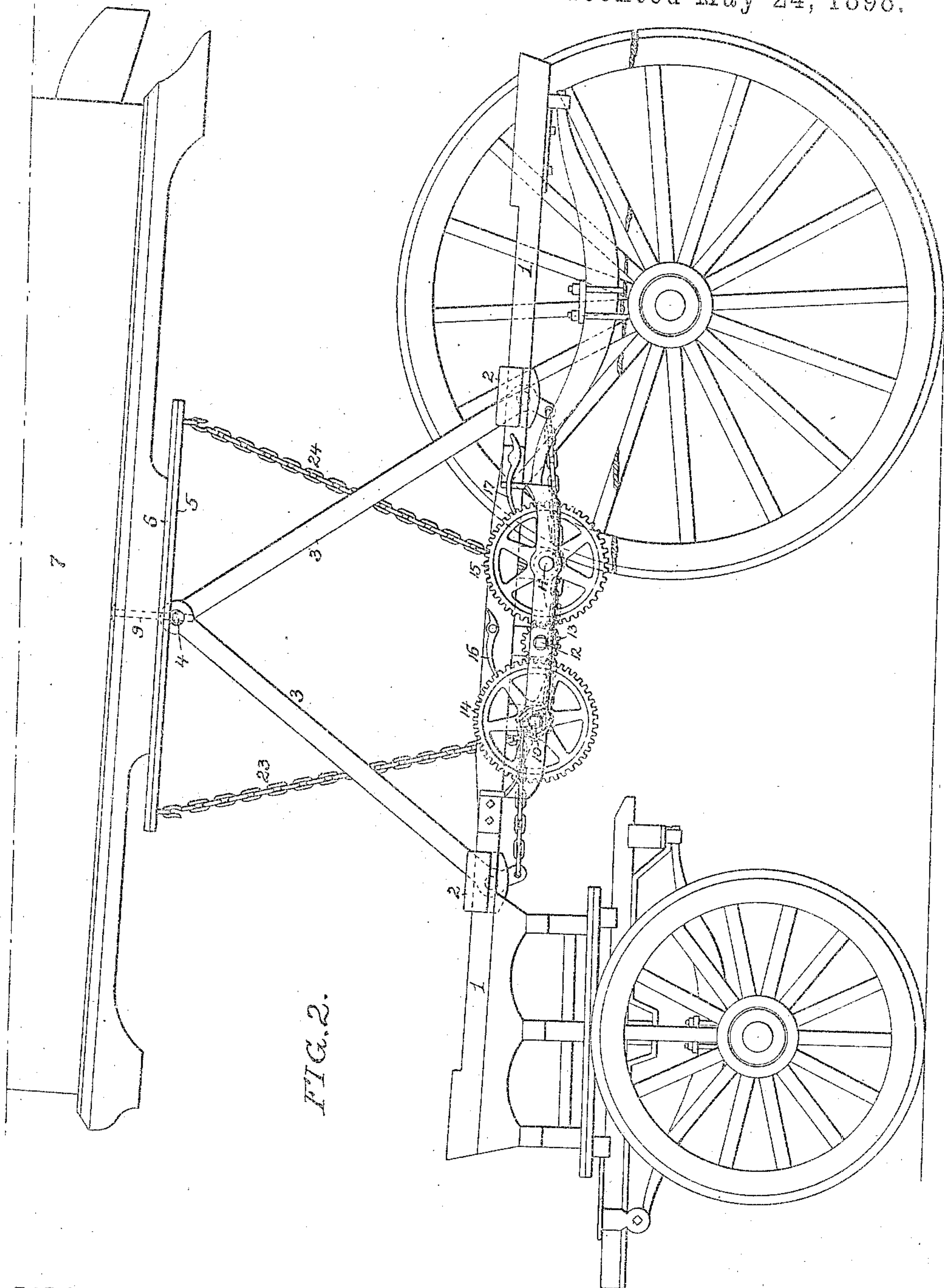
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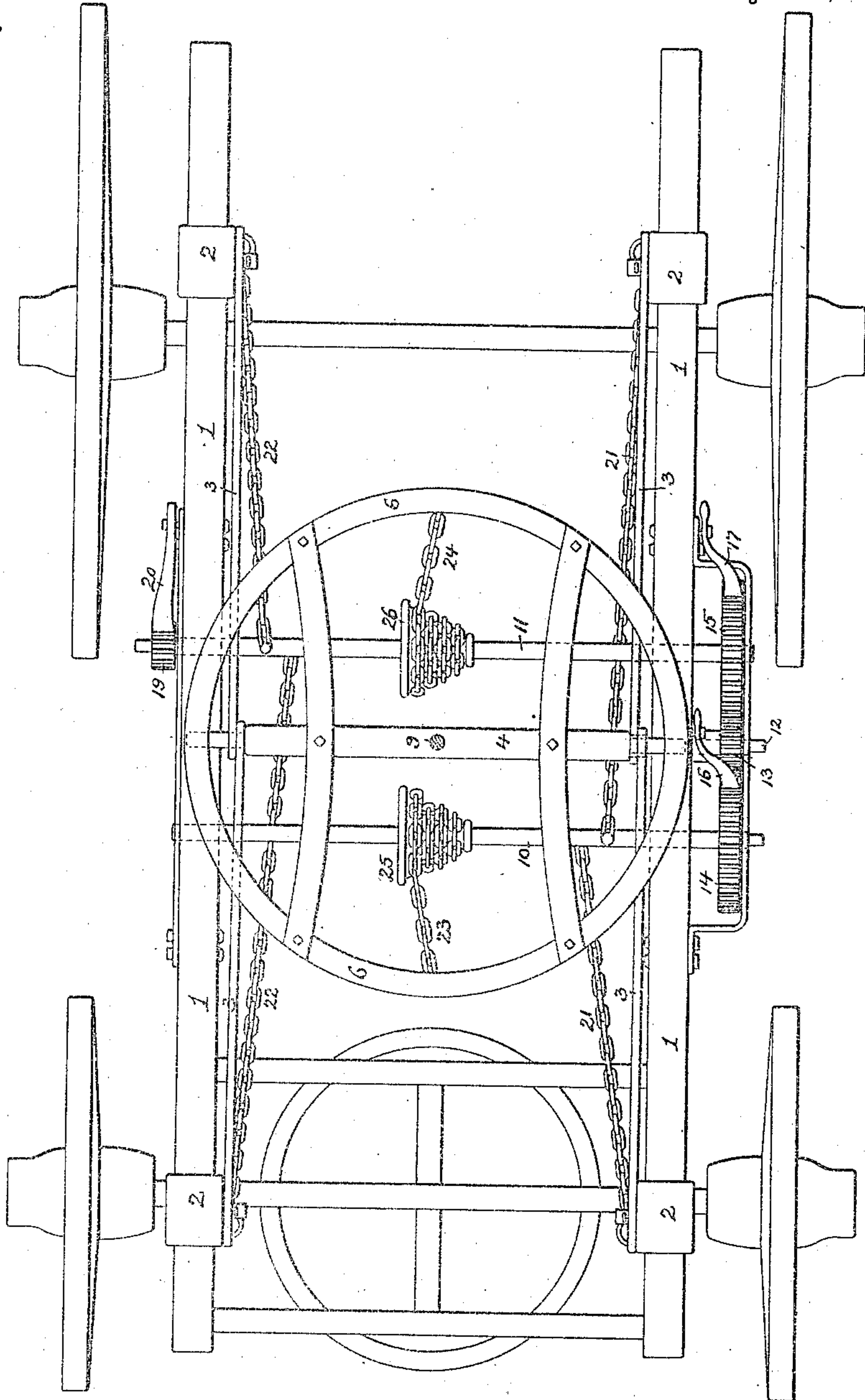
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FIG. 3.



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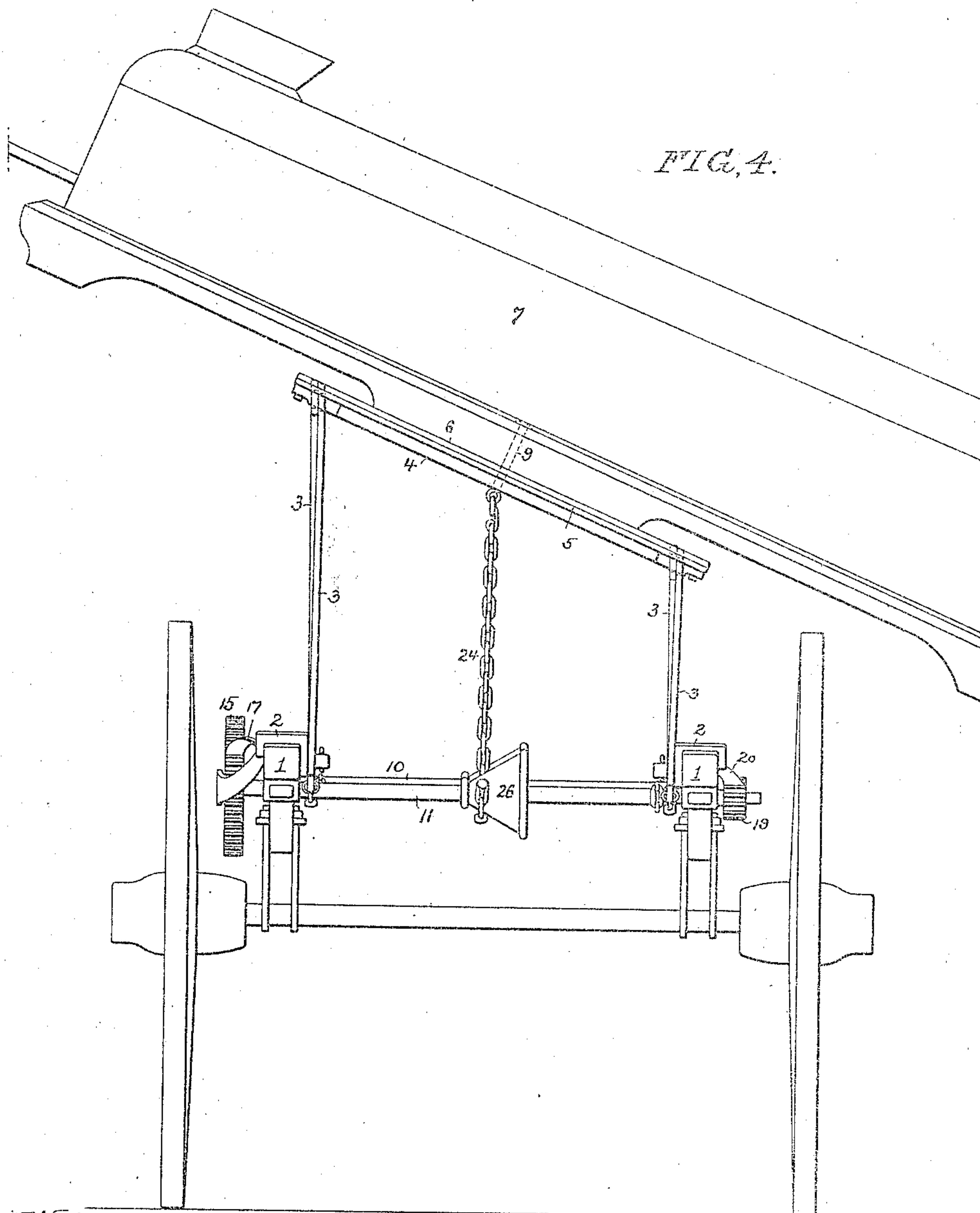
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# UNITED STATES PATENT OFFICE.

SAMUEL STURGIS, OF WEST MANAYUNK, PENNSYLVANIA, ASSIGNOR TO  
JAMES A. McCULLOUGH, OF PHILADELPHIA, PENNSYLVANIA.

## DUMPING-WAGON.

SPECIFICATION forming part of Letters Patent No. 604,644, dated May 24, 1898.

Application filed December 31, 1897. Serial No. 665,033. (No model.)

*To all whom it may concern:*

Be it known that I, SAMUEL STURGIS, a citizen of the United States, residing at West Manayunk, Pennsylvania, have invented certain Improvements in Dumping-Wagons, of which the following is a specification.

The object of my invention is to construct a dumping-wagon having but few operative parts, but capable of dumping either before, behind, or on either side, an object which I attain in the manner hereinafter set forth, reference being had to the accompanying drawings, in which—

Figure 1 is a side view of a dumping-wagon constructed in accordance with my invention, showing the body lowered. Fig. 2 is a similar view showing the body raised. Fig. 3 is a plan or top view with the body removed, and Fig. 4 is a rear view showing the body adjusted so as to dump sidewise.

The running-gear may be similar to that of any ordinary wagon, and hence will require no description.

Each of the side sills 1 of the truck constitutes a rail for the guidance of a pair of shoes 2, to each of which is pivoted a lever 3, these levers having at their inner ends coincident eyes, which receive the opposite ends of a bar 4, extending transversely across the wagon-frame from one pair of levers 3 to the other, as shown in Fig. 2.

Secured to the bar 4 is the lower ring 5 of a turn-table, said ring 5 supporting an upper ring 6, which is suitably secured to the body of the wagon, a central king-bolt 9 or other available means being employed for confining the upper and lower rings of the turn-table together and preserving their concentricity.

To suitable bearings on the opposite side sills 1 of the truck-frame are adapted two shafts 10 and 11, and to a bearing on one of the side sills is also adapted a short shaft 12, this latter shaft having a pinion 13, which meshes with a spur-wheel 14, secured upon the shaft 10, and also with a spur-wheel 15, mounted upon the shaft 11 in such manner that it can be moved longitudinally thereon, so that it can be thrown into or out of mesh with the pinion 13. Detents or pawls 16 and 17, engaging with the spur-wheels 14 and 15,

prevent back movement of either shaft 10 or 11.

The end of the shaft 11 opposite to that carrying the spur-wheel 15 has a pinion 19, which is engaged by a detent 20, and this end of the shaft 11 and also the opposite end of the shaft 10 and the shaft 12 are of square or other suitable polygonal form for the reception of an operating crank or handle.

The short arm of each of the levers 3 on one side of the wagon is connected by a chain 21 to the shaft 10, so that when said shaft is turned forwardly each of the chains will be wound thereupon, and in like manner the short arms of the levers on the other side of the wagon are connected by chains 22 to the shaft 11 in such manner that when the latter is turned forwardly the chains will be wound thereupon.

The fore-and-aft central portions of the turn-table ring 5 are connected, respectively, by chains 23 and 24 to conical drums 25 and 26 on the shafts 10 and 11, the chains being so wound upon these drums that as the chains 21 and 22 are wound upon the shafts the chains 23 and 24 will be unwound from the drums, and vice versa.

The upper ends of the chains 23 24 are connected to the lower ring 5 of the turn-table by means of hooks or other readily-detachable fastenings, so that either chain may be readily disconnected from the ring when circumstances require such disconnection.

Normally—that is to say, when the wagon is being loaded or drawn from place to place—the chains 21 and 22 are unwound from the shafts 10 and 11 and the chains 23 and 24 are wound on the drums 26 and 27, the levers 3 being fully extended and the wagon-body resting upon the sills.

When it is desired to discharge the load, the shaft 12 is turned by means of a suitable operating-handle, so as to wind up the chains 21 and 22 on the shafts 10 and 11 and unwind the chains 23 and 24 from the drums 26 and 27, the shoes 2 of the levers 3 being drawn toward each other and the central portions of said levers being thereby caused to rise, carrying with them the turn-table 5 6 and the wagon-body mounted thereupon.

If it is desired to dump at the rear, the front



chain 23 is unhooked before turning the shafts 10 and 11, so that as the bar 4 is raised by the levers 3 the turn-table can tip rearwardly, the rear portion of the body remaining on the 5 sills, and in like manner if it is desired to dump at the front end the rear chain 24 is unhooked before operating the shafts 10 and 11, so that the turn-table can tip forwardly.

If a side dump is required, the wagon-body 10 is first lifted horizontally by winding up the chains upon both the shafts 10 and 11 until said wagon-body is clear of the wheels, whereupon it can be swung around into position across the truck so as to discharge either to the 15 right or to the left, and the pair of levers which are then under the forward portion of the turn-table can be lifted by operating the shaft controlling said levers, the shaft 10 being operated through the medium of the shaft 12 after first moving the spur-wheel 15 out of mesh 20 with the pinion 13 or the shaft 11 being operated by means of a handle applied to the end of the same after the spur-wheel 15 has in like manner been moved out of gear.

25 In effecting a side dump the turn-table as it rises is maintained in the horizontal position by the chains 23 and 24, the latter being delivered evenly and in proportion to the rising movement of the turn-table owing to the 30 use of the conical drums 25 and 26, as the rising movement of the body is much greater in proportion to the winding up of the chains 21 and 22 and the longitudinal movement of the shoes 2 during the earlier portion of the 35 lift than when the levers assume a gradually-increasing angle in respect to each other.

The chains 21 and 22 may, if desired, be connected to the slides 2 instead of to the short arms of the levers, the latter in such 40 case being dispensed with. The construction shown is, however, preferred.

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

45 1. The combination of the running-gear of a wagon, opposite pairs of toggle-levers thereon, a turn-table carried by the meeting ends of said toggle-levers, a wagon-body mounted so as to turn on said turn-table, and provision 50 for drawing the lower-ends of the toggle-le-

vers toward each other so as to elevate the turn-table and the wagon-body mounted thereon, substantially as specified.

2. The combination of the running-gear of a wagon, opposite pairs of toggle-levers, a 55 turn-table carried by the meeting ends of said levers, a wagon-body mounted upon said turn-table so as to be free to turn thereon, and winding-shafts having draft-chains, those of one shaft operating one pair of toggle-levers 60 and those of the other shaft operating the other pair of toggle-levers, substantially as specified.

3. The combination of the running-gear of a wagon, opposite pairs of toggle-levers, a 65 turn-table carried by the meeting ends of said pairs of levers, a wagon-body free to turn on said turn-table, a pair of winding-shafts, draft-chains whereby each shaft is caused to operate its respective pair of toggle-levers, 70 and slides guided on the sills of the truck and carrying the outer ends of said toggle-levers, substantially as specified.

4. The combination of the truck and its running-gear, opposite pairs of toggle-levers, 75 a turn-table carried by the meeting ends of said levers, a wagon-body free to turn on said turn-table, winding-shafts each having draft-chains operating its respective pair of toggle-levers, cone-drums on said shafts, and stay- 80 chains leading from said cone-drums to the fore-and-aft portions of the turn-table, substantially as specified.

5. The combination of the truck and its running-gear, opposite pairs of toggle-levers, 85 a turn-table carried by the meeting ends of said levers, a wagon-body free to turn on said turn-table, a pair of winding-shafts each having draft-chains operating its respective pair of toggle-levers, and provision for operating 90 said winding-shafts either simultaneously or separately, substantially as specified.

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

SAMUEL STURGIS.

Witnesses:

FRANK E. BECHTOLD,  
JOS. H. KLEIN.