

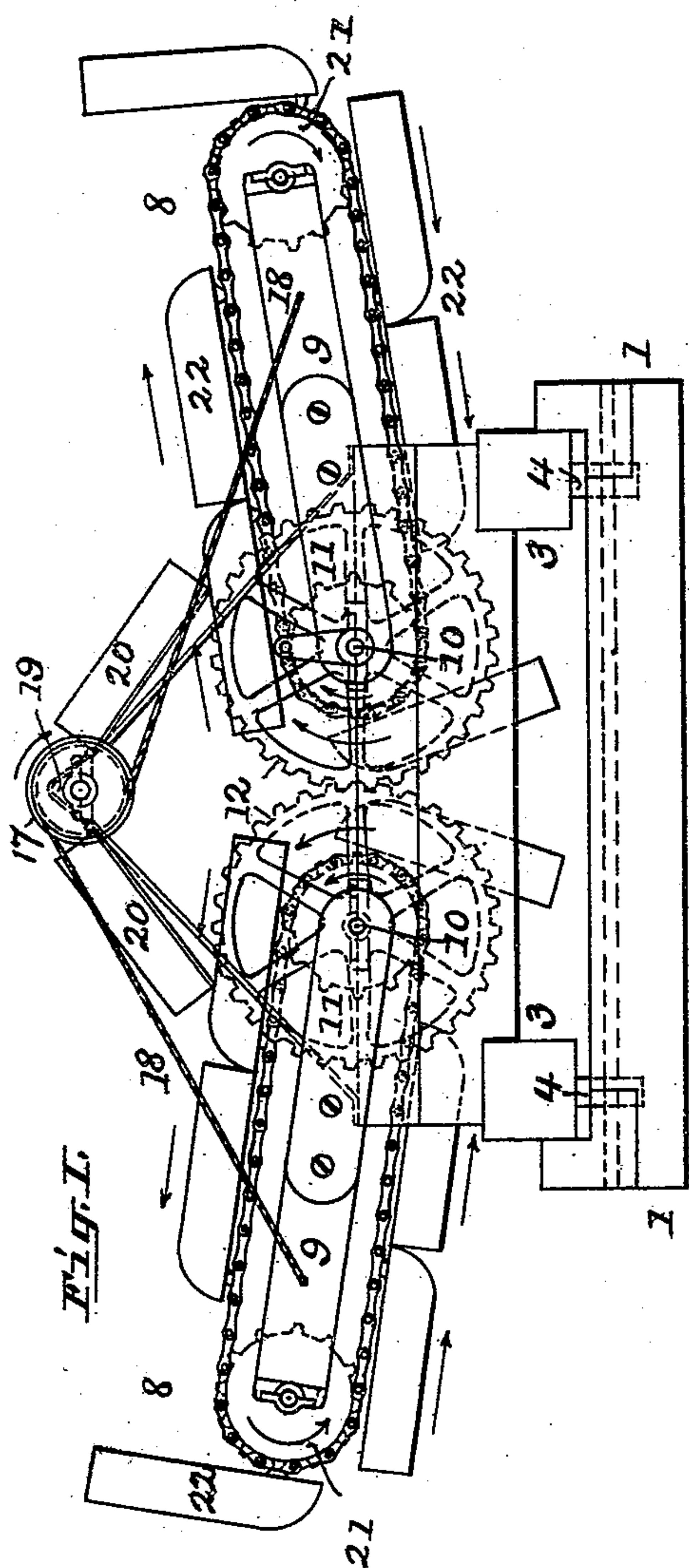
(No Model.)

4 Sheets—Sheet 1.

R. W. COMPTON.
CAR LOADING APPARATUS.

No. 475,236.

Patented May 17, 1892.



Attest:

Geo. H. Arthur

M. H. Holmes.

Inventor:
Richard W. Compton,
by Robert Burns
Attorney.

(No Model.)

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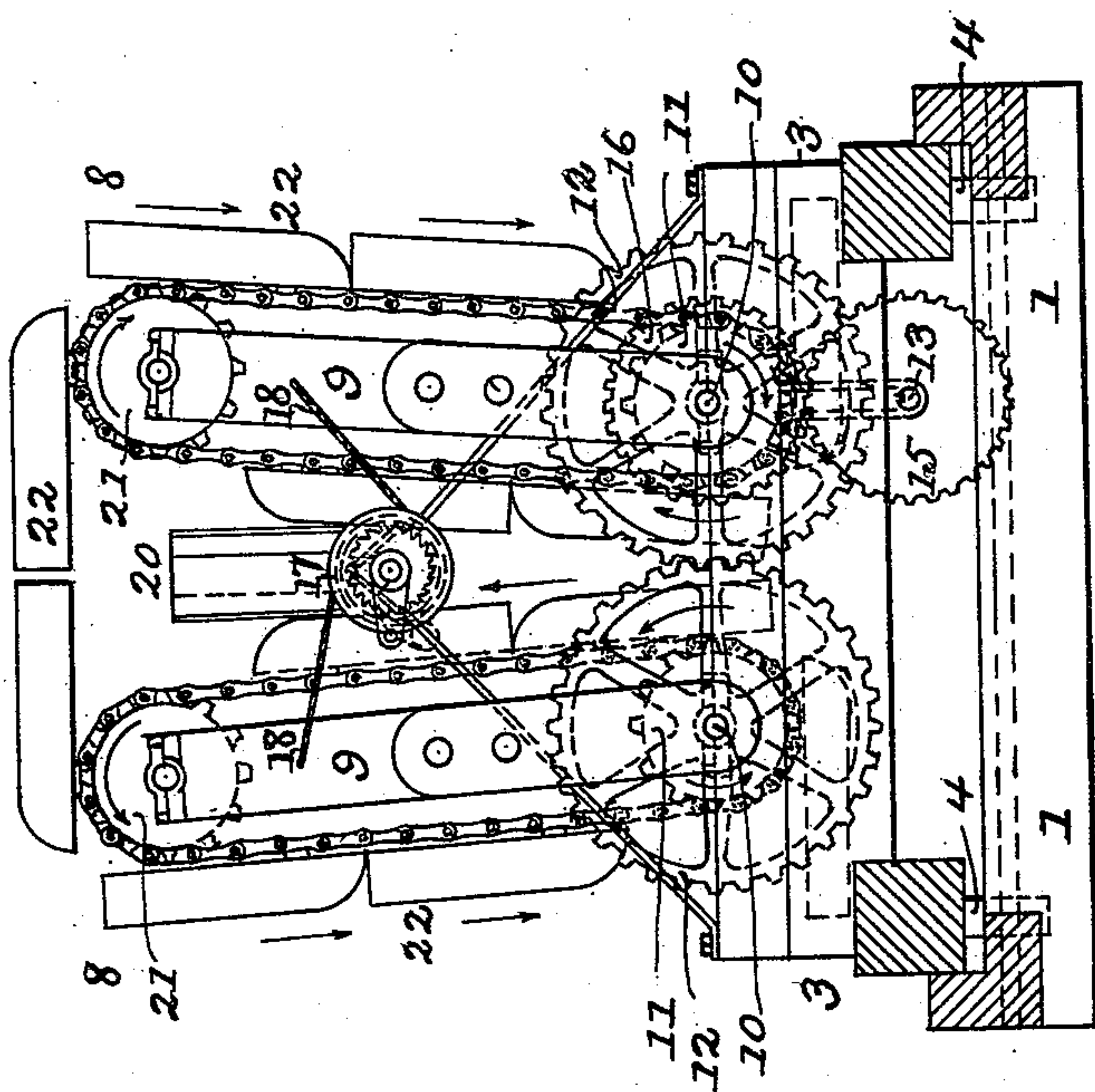


Fig II

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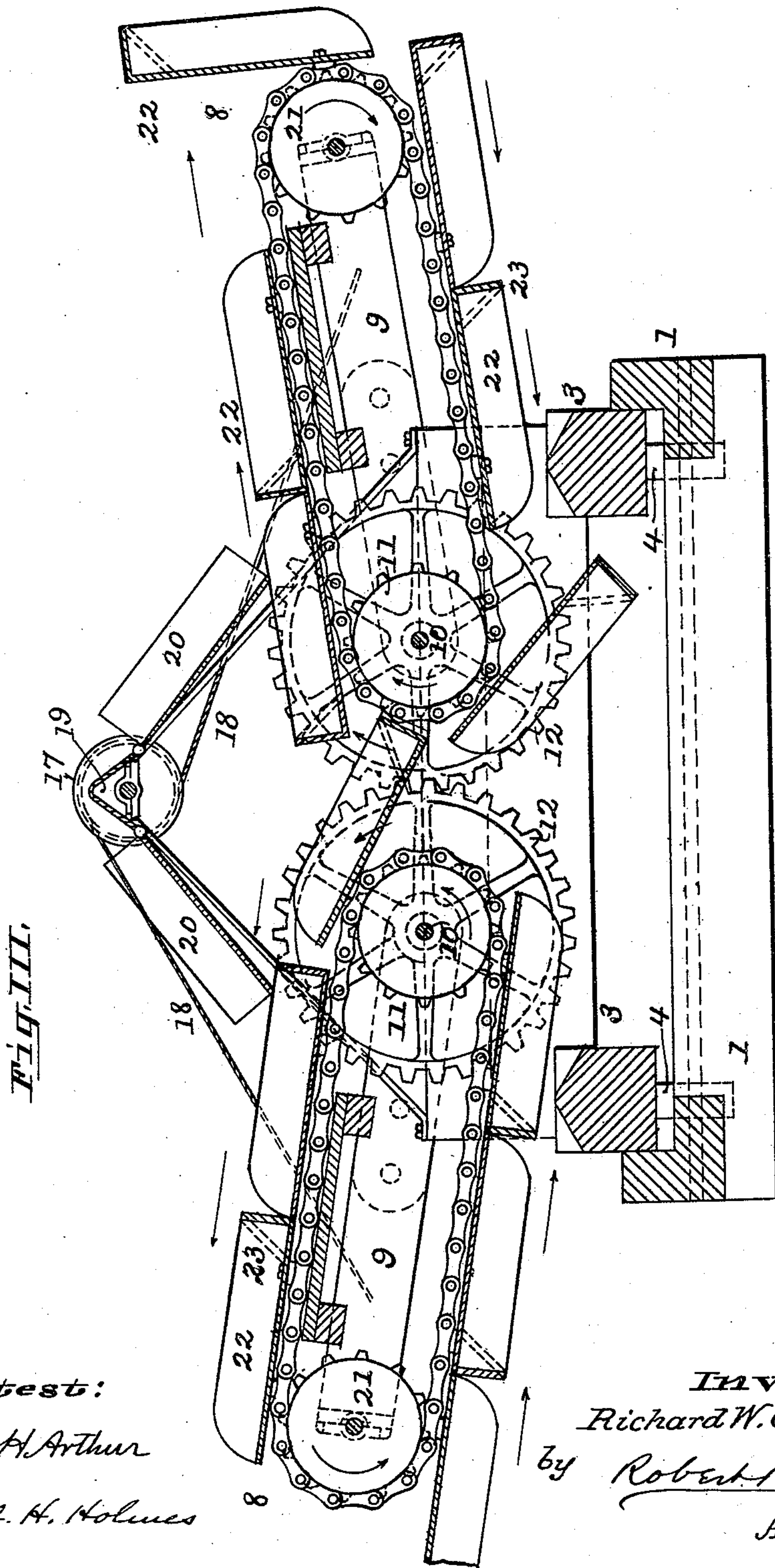
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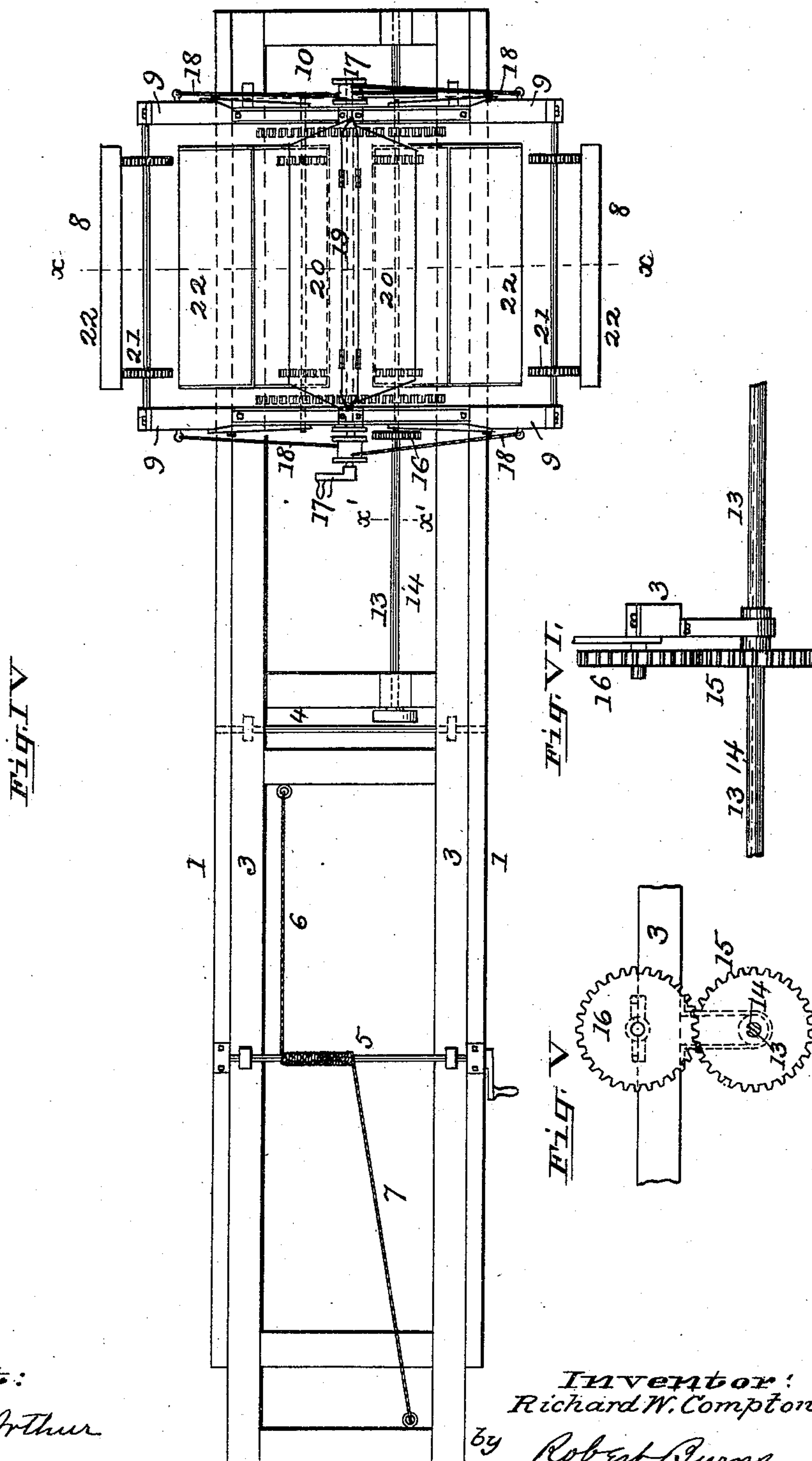
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by Robert Burns
Attorney.

UNITED STATES PATENT OFFICE.

RICHARD W. COMPTON, OF MOBERLY, ASSIGNOR OF ONE-HALF TO
BENJAMIN F. HEIRS, OF ST. LOUIS, MISSOURI.

CAR-LOADING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 475,236, dated May 17, 1892.

Application filed January 25, 1892. Serial No. 419,222. (No model.)

To all whom it may concern:

Be it known that I, RICHARD W. COMPTON, a citizen of the United States, residing at Moberly, in the county of Randolph and State of Missouri, have invented certain new and useful Improvements in Car-Loading Apparatus; and I do hereby declare the following to be a full, clear, and exact description of the same; reference being had to the accompanying drawings, forming part of this specification.

This invention relates to an apparatus for loading loose freight, more especially coal, on railway-cars.

The object of the present improvements is to provide a simple, durable, and efficient apparatus by which the coal or other freight can be evenly and uniformly distributed within the car and in which the various adjustments of the parts by which such results are attained are within the convenient and ready control of the operator. I attain such object by the construction and arrangement of parts illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of the apparatus supported over the body or box of a railway-car, the pair of counterpart lateral conveyers or distributors being shown in their lowered position; Fig. 2, a similar view of the same, partly in section, with said pair of conveyers in their raised position; Fig. 3, an enlarged transverse section at line $x x$, Fig. 4; Fig. 4, a plan view of the apparatus; Fig. 5, a detail section at line $x' x'$, Fig. 4, illustrating the motion-transmitting gearing between the driving and driven shafting of the apparatus; Fig. 6, a detail elevation of the same.

Similar numerals of reference indicate like parts in the several views.

Referring to the drawings, 1 represents a stationary slideway adapted to overhang a railway-track and raised sufficient distance from the track to admit of the passage of a car 2 beneath the same.

3 is an adjustable frame or carriage adapted to slide on the slideway 1, preferably on rollers 4, the adjusting movement being imparted thereto by a windlass 5, mounted on the slideway 1, the rope ends 6 and 7 of which are connected, respectively, to the carriage 3, as illustrated in Fig. 4.

8 8 are counterpart conveyers pivoted at their adjacent ends by their supporting-frames 9 to the carriage 3 by means of the cross-shafts 10. The cross-shafts 10 carry the inner pair of belt or chain wheels 11 of the conveyer, as well as the pair of meshed gears 12 12, by which the conveyers are caused to travel in unison.

13 is a driving-shaft supported in bearings 60 in the slideway 1 and receiving motion from any suitable source.

14 is a longitudinal keyway in the shaft 13, in which fits a key or spline on the gear-wheel 15, so that the same will turn with said shaft and still be capable of longitudinal movement on said shaft in accordance with the adjustment of carriage 3, to which it is connected, so as to move therewith. (See Figs. 2, 4, 5, and 6.) The gear-wheel 15 meshes with and drives a gear-wheel 16 on one of the shafts 10 of the conveyers so as to impart the requisite motion thereto.

The conveyers 8 8 are capable of pivotal adjustment on their shafts 10 from a nearly vertical to a horizontal position, their adjustment being attained by a centrally-arranged windlass 17, ropes or chains 18, from which extend to and are attached to the carrying-frames 9 of the conveyers, as illustrated in Figs. 1, 2, 3, and 4, said windlass 17 being provided with the usual locking ratchet-wheel and dog or other well-known locking means.

Centrally between the two conveyers is arranged the "divider," upon which the coal or other loose freight is discharged from a suitable chute or other source of supply, and by which such coal, &c., is divided and directed onto the conveyers in an even and equal manner. In the present construction the divider consists, preferably, of a central inverted-V-shaped piece 19, at the sides of which are pivoted the pair of counterpart laterally-extending guide-pans 20, the free ends of which rest on their respective conveyers and move therewith as the same are adjusted to and from a vertical position.

The conveyers 8 8 are composed of the usual chains or other belting passing around the conveying pulleys or wheels 11 and 21 on the conveyer-frames 9 and a series of open-fronted pans 22, which are arranged end to end and

are attached to the chains near their forward edges, as illustrated in Figs. 1 and 3, the purpose being to give a rapid movement to the rear ends of the pans as they are passing around the wheels 21, so as to impart additional momentum to the material as it is discharged therefrom and cause it to be thrown a distance from the free end of the conveyers. The rear walls 23 may be vertical, as shown in Fig. 3, as best adapted for some uses. For general use, however, I prefer to make such walls of an inclined form, as indicated in dotted lines.

In the use of my improved loading apparatus the car to be loaded will be run centrally under the slideway 1, and in the loading of the same the carriage 3 will be moved back and forth, so as to cover and fill the full width of the car. At the same time the conveyers will be moved from a horizontal to a vertical position, or vice versa, so as to cover or fill the full length of the car.

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

1. A car-loading apparatus comprising, in combination, a stationary overhanging slideway, a carriage adjustable thereon, and a pair of counterpart conveyers arranged to project laterally in a pivotal manner on said carriage, a pair of gears for connecting the driving-shafts of the conveyers together to move in unison, and means for effecting an adjustment of the conveyers, consisting of a centrally-arranged windlass, the ropes or chains from which are connected to the conveyer-frames, substantially as set forth.

2. A car-loading apparatus comprising, in

combination, a stationary overhanging slideway, a carriage adjustable thereon, and a pair of counterpart conveyers arranged to project laterally in a pivotal manner on said carriage, and a centrally-arranged inverted-V-shaped divider, substantially as set forth.

3. A car-loading apparatus comprising, in combination, a stationary overhanging slideway, a carriage adjustable thereon, and a pair of counterpart conveyers arranged to project laterally in a pivotal manner on said carriage, and a centrally-arranged inverted-V-shaped divider having laterally-arranged wings or pans pivoted to its sides, substantially as set forth.

4. A car-loading apparatus comprising, in combination, a stationary overhanging slideway 1, a carriage 3, arranged to slide thereon, a pair of counterpart conveyers mounted on said carriage, and means for imparting motion to the carriage, consisting of a windlass 5, mounted on the carriage, with the rope ends 6 and 7 connected to the slideway, substantially as set forth.

5. A car-loading apparatus comprising, in combination, a stationary overhanging slideway 1, a carriage 3, arranged to slide thereon, a pair of counterpart conveyers mounted on said carriage by means of cross-shafts 10, the gears 12, shaft 13, having keyway 14, and the gear-wheels 15 and 16, substantially as set forth.

In testimony whereof I affix my signature in the presence of two witnesses.

RICHARD W. COMPTON.

Witnesses:

AUGUST KLORNE,
W. H. MORRIS.