

No. 680,631.

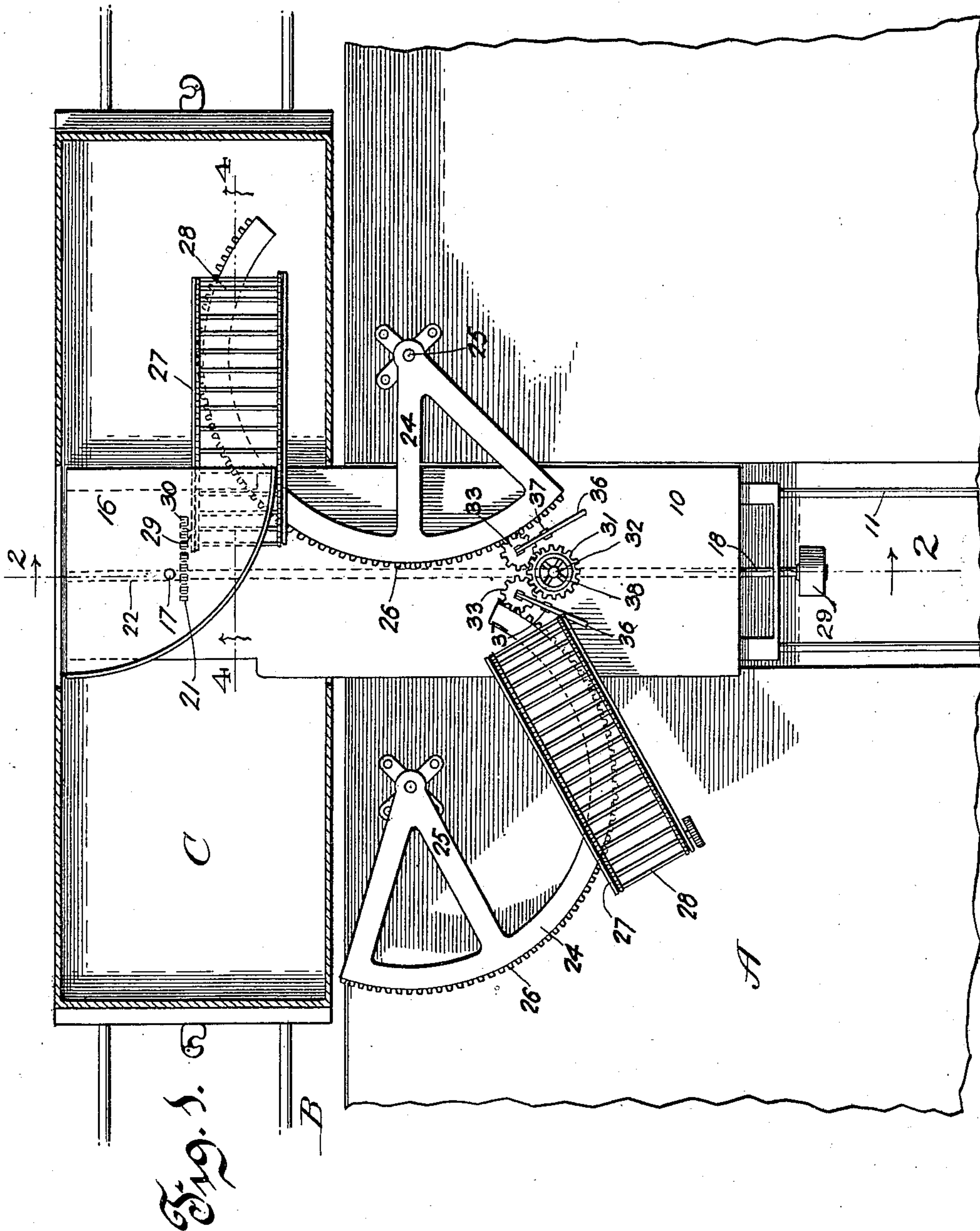
Patented Aug. 13, 1901,

J. E. YOUNG.  
CAR LOADER.

(Application filed Dec. 6, 1900.)

(No Model.)

2 Sheets—Sheet 1.



Witnesses  
J. Frank Leberwell.  
J. W. Garner

John Earl Young, Inventor.  
By C. A. Snow & Co.  
Attorneys

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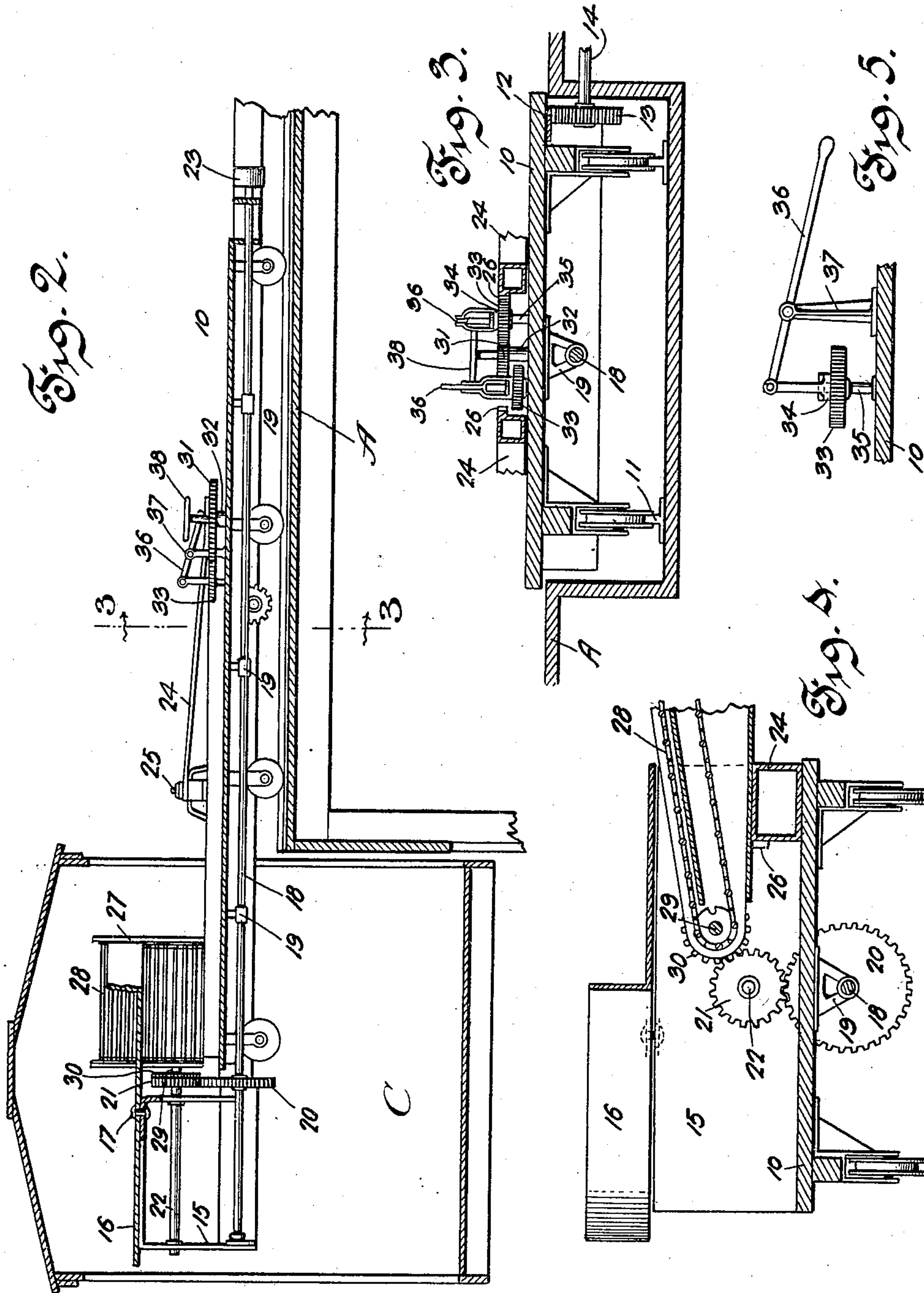
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# UNITED STATES PATENT OFFICE.

JOHN EARL YOUNG, OF TRINIDAD, COLORADO.

## CAR-LOADER.

SPECIFICATION forming part of Letters Patent No. 680,631, dated August 13, 1901.

Application filed December 6, 1900, Serial No. 38,949. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN EARL YOUNG, a citizen of the United States, residing at Trinidad, in the county of Las Animas and State of Colorado, have invented a new and useful Car-Loader, of which the following is a specification.

My invention is an improved car-loader especially adapted for loading box-cars with coal and other material; and it consists in the peculiar construction and combination of devices hereinafter fully set forth and claimed.

The object of my invention is to provide an improved mechanism for discharging coal and other material directly within a box-car, at the ends thereof, to avoid shoveling.

In the accompanying drawings, Figure 1 is a top plan view of a car-loader embodying my improvements, showing the same adjusted for operation in a box-car, the latter being indicated in horizontal section. Fig. 2 is a sectional view of my improved car-loader, taken on a plane indicated by the line 2 2 of Fig. 1. Fig. 3 is a sectional view taken on a plane indicated by the line 3 3 of Fig. 2. Fig. 4 is a sectional view taken on a plane indicated by the line 4 4 of Fig. 1. Fig. 5 is a detail view of one of the gear-pinions and its connections for operating the coal-conveyers to run the same into or out of the car.

In the embodiment of my invention I provide a platform A, which is one side of a railway-track B, so that a car C may be run alongside said platform.

A carriage 10 travels on a track 11 on the platform A, said track 11 being at right angles to the track B, and thereby the outer portion of said carriage 10 is adapted to run into a box-car, through the central side door thereof, and disposed within the box-car, as shown. Any suitable means may be employed for running the carriage 10 into and from the car C. In the form of my invention here shown I provide the carriage 10 on the underside of the platform, at one side thereof, with a longitudinally-disposed rack-bar 12, which is engaged by a gear-pinion 13, mounted on a shaft 14. The latter may be turned by power or manually by means of a crank (not shown) at will.

At the outer end of the car 10 is an elevated frame 15, on which is supported a quadrant-

shaped reversible chute 16, which is pivoted on the frame 15, as at 17, and is adapted to direct coal or the like material discharged thereon to either end of the car. A shaft 18 is disposed longitudinally of the carriage 10 and is journaled in suitable bearings 19 under the platform thereof. The said shaft is provided near one end thereof, which I will call the "outer" end, with a spur-wheel 20, that meshes with a similar wheel 21 on a counter-shaft 22, the latter being journaled in suitable bearings in frame 15. At the inner end of said shaft 18 is a pulley 23, by means of which power may be applied thereto to rotate said shaft.

On the platform A, near the outer side thereof and at a suitable distance from the track 11, on opposite sides of said track, are pivoted segmental frames 24, as at 25. Each of said frames in the form of my invention here shown is provided on its outer side with a segmental rack 26. Each segmental frame 24 carries a conveyer 27, provided with an endless movable conveying element 28, actuated by a shaft 29, which has a gear 30, adapted to engage the gear 21 when the frame 24 is turned so as to run the said conveyer 27 into one end of the car and in a position under the reversible chute 16, so that the coal or other material discharged from the said chute will be conveyed by the said conveyer to the end of the car.

It will be understood that power is conveyed from the shaft 18 through the gears 20, 21, and 30 to the endless movable element of the conveyer disposed in the car. It will be further understood that after one of the conveyers has been employed for loading coal or other material in the one end of the car said conveyer is run out from the car and the other conveyer run into the opposite end thereof, and hence by means of my improved car-loading mechanism coal or other material may be loaded readily into both ends of an ordinary box-car, and thereby avoid the necessity of shoveling the same when loading a car.

Any suitable means may be employed for moving the conveyers into and out of the car. In the form of my invention here shown I provide a gear-wheel 31, which is mounted on a shaft 32 on the car 10, and a pair of pinions 33, which alternately engage said gear-wheel



31 and are adapted to engage the segment-racks 26 of the conveyers 28. Each of the said pinions 33 is journaled and revoluble on a sleeve 34, which is vertically movable on a short vertical stub-shaft 35, that projects from the upper side of the platform of car 10. A suitable hand-lever 36 is connected to each sleeve 34 and is fulcrumed on a suitable standard 37 on car 10. By this means the pinions 33 may be raised and lowered. When a pinion is raised, it engages the gear-wheel 31 and the segment-rack 26 of one of the conveyers. The gear-wheel 31 being then turned by any suitable means, as by a hand-wheel, (indicated at 38,) the conveyer with which the pinion is engaged will be moved into or out of the car, as may be desired. Hence the conveyers may be moved into and out of the car at will, and inasmuch as the gear 30 of each conveyer when the same is run into the car becomes engaged with the gear 21, to which power is communicated by the gear 20 from shaft 18, each conveyer when it is disposed in operative position in the car has its endless traveling conveying element 28 actuated and caused to convey coal or other material from the reversible chute 16 to one end of the car.

Having thus described my invention, I claim—

1. In a car-loader, the combination of a car adapted to be moved into and out of a railway-car or the like and provided at one end with a reversible chute adapted to discharge toward either end of the railway-car at will and pivoted conveyers on fixed supports and adapted to be disposed in the ends of the railway-car and to be moved outward therefrom, said conveyers being adapted to convey the material discharged from the reversible chute to the ends of the car, substantially as described.

2. The combination in a car-loader, of a longitudinally-movable car adapted to be run into and out of a railway-car, a power mechanism carried by said movable car, and in-

cluding a gear, horizontally-disposed segment-frames having vertical axes and disposed on opposite sides of said movable car, said segment-frames being adapted to be swung successively into and out of the opposite ends of the railway-car, through a door in the side of the latter, and conveyers mounted on said segment-frames, each of said conveyers having an actuating-gear adapted to engage with the power-gear of the movable car, substantially as described.

3. In a car-loader, the combination of a platform, a longitudinally-movable car adapted to run into and out of a railway-car, a reversible chute pivoted on and carried by the outer end of said longitudinally-movable car and conveyers on pivoted frames mounted on opposite sides of the longitudinally-movable car whereby said conveyers may be swung into and run out of a railway-car and disposed in the ends thereof, in position to receive material from said reversible chute, substantially as described.

4. In a car-loader, the combination of a car adapted to be run into and out of a railway-car or the like, a reversible chute carried by said movable car and adapted to discharge alternately toward the ends of the railway-car, pivoted frames disposed on opposite sides of the movable car, having vertical axes and adapted to be swung successively into and out of the opposite ends of the railway-car, through a door, in the side of the latter and conveyers carried by said pivoted frames, coacting successively with the reversible chute to convey material to the ends of the car, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

JOHN EARL YOUNG.

Witnesses:

G. W. BENEDICT,  
G. W. BOWEN.