

T. J. JORDEN & J. W. PEMBERTON.

FEEDER FOR CAR HAULS.

APPLICATION FILED AUG. 5, 1909.

955,884.

Patented Apr. 26, 1910.

3 SHEETS—SHEET 1.

Fig. 1

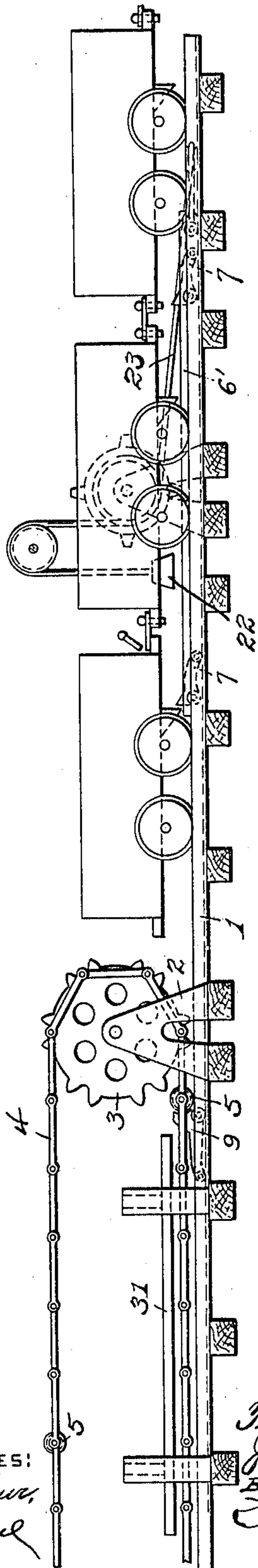
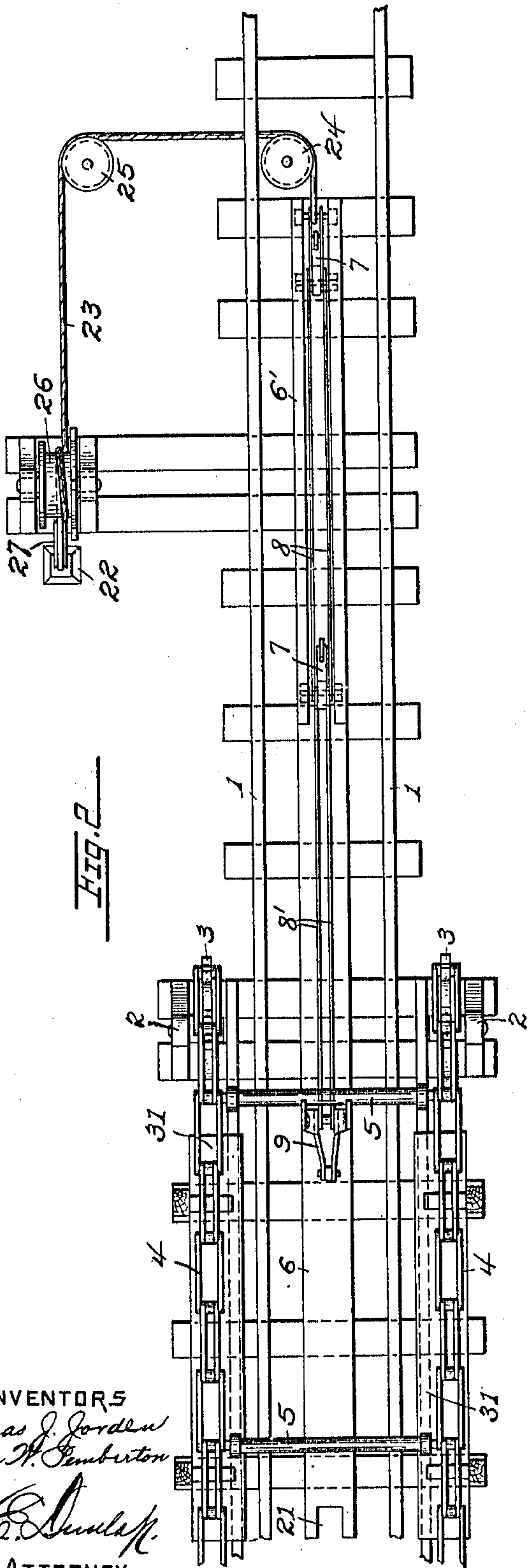


Fig. 2



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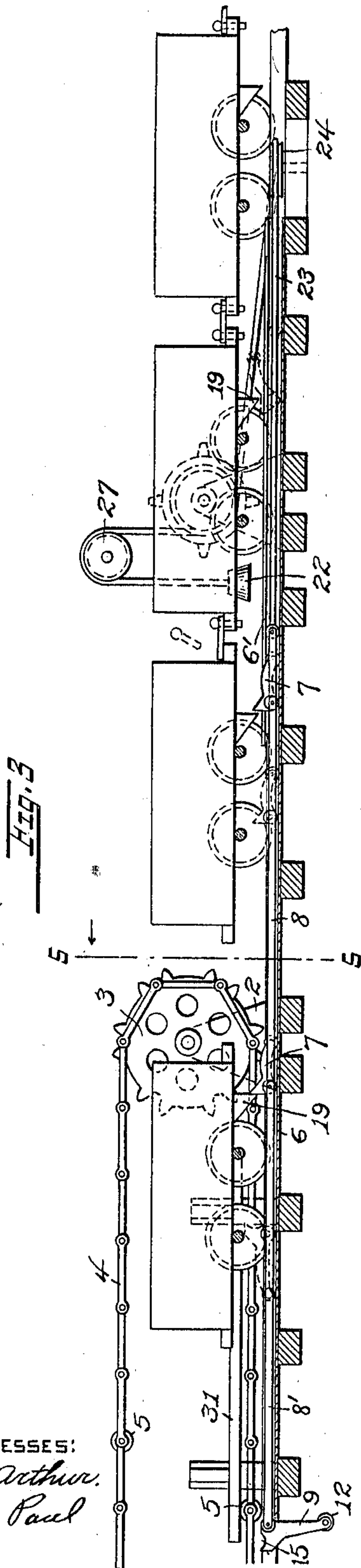
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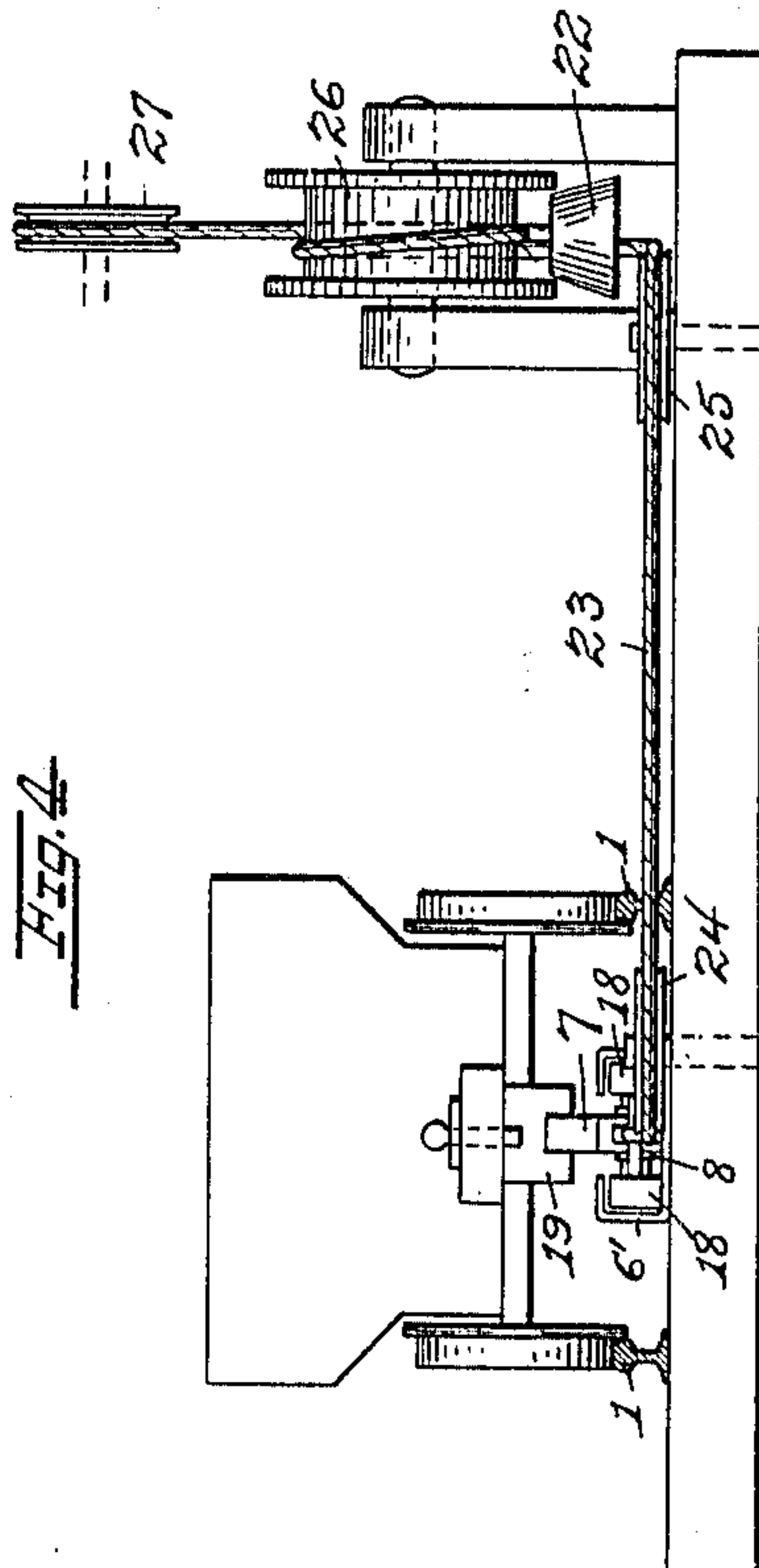
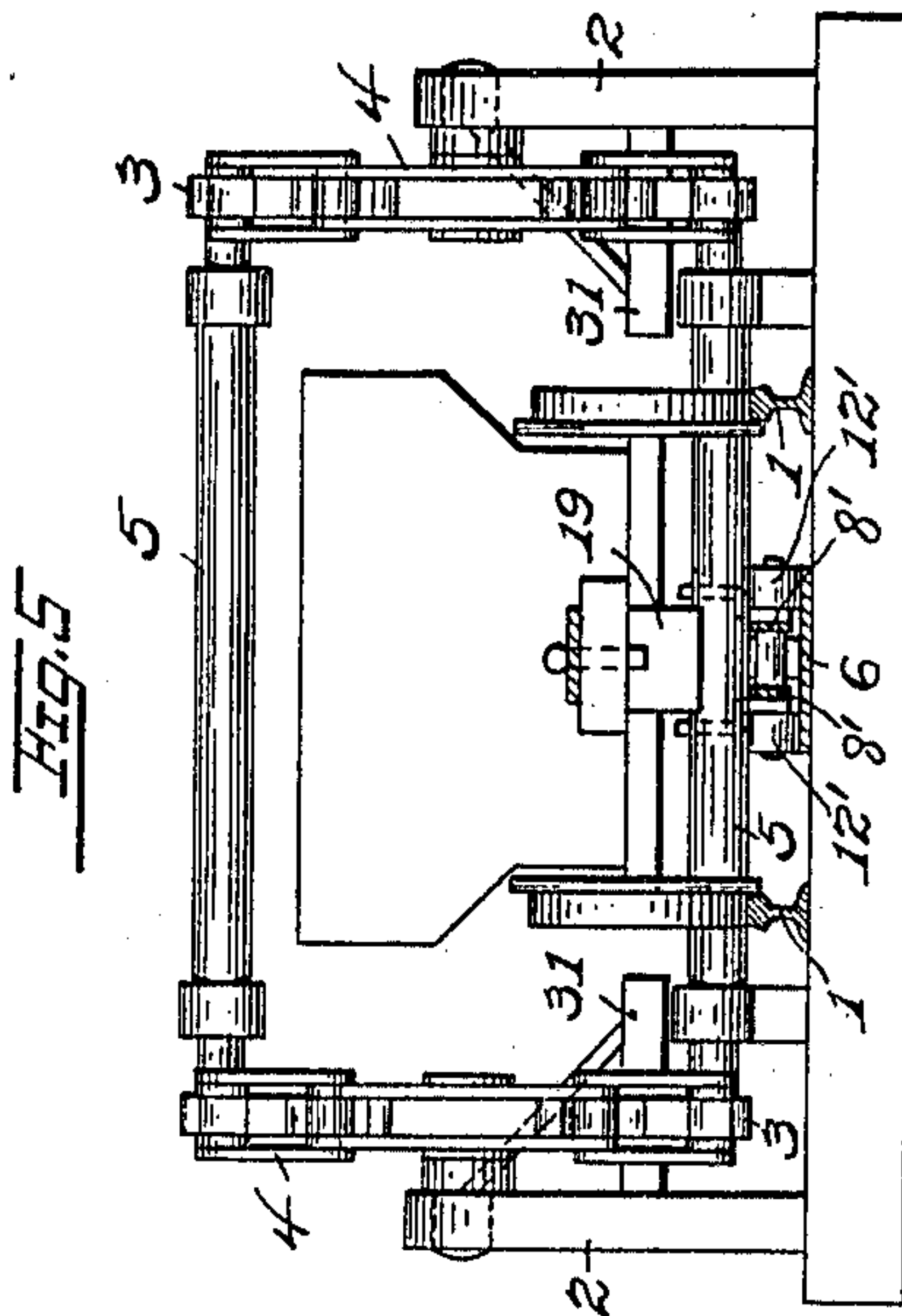
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3 SHEETS—SHEET 2.



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FEEDER FOR CAR HAULS.

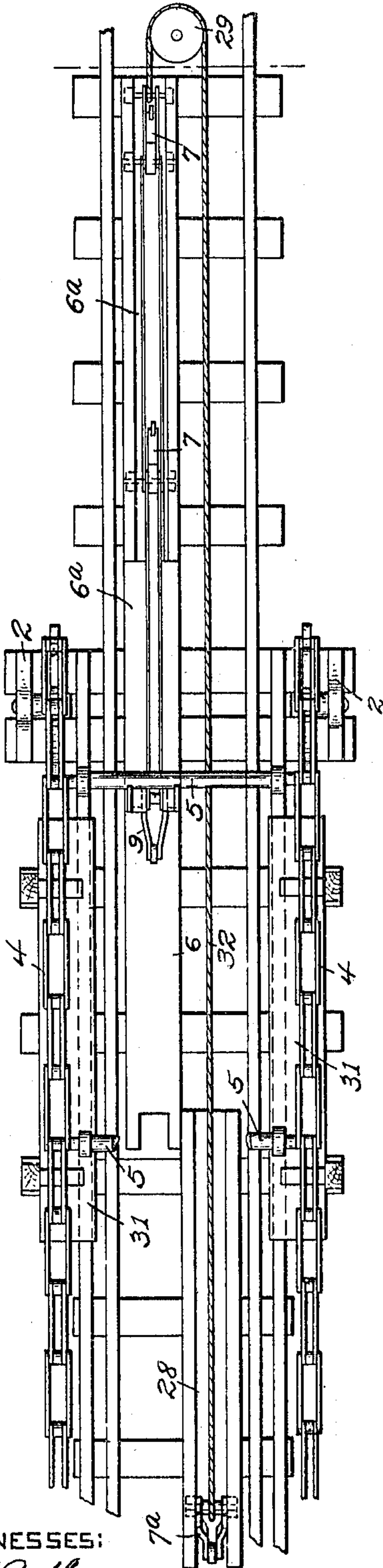
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3 SHEETS—SHEET 3.

Fig. 6



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Fig. 9

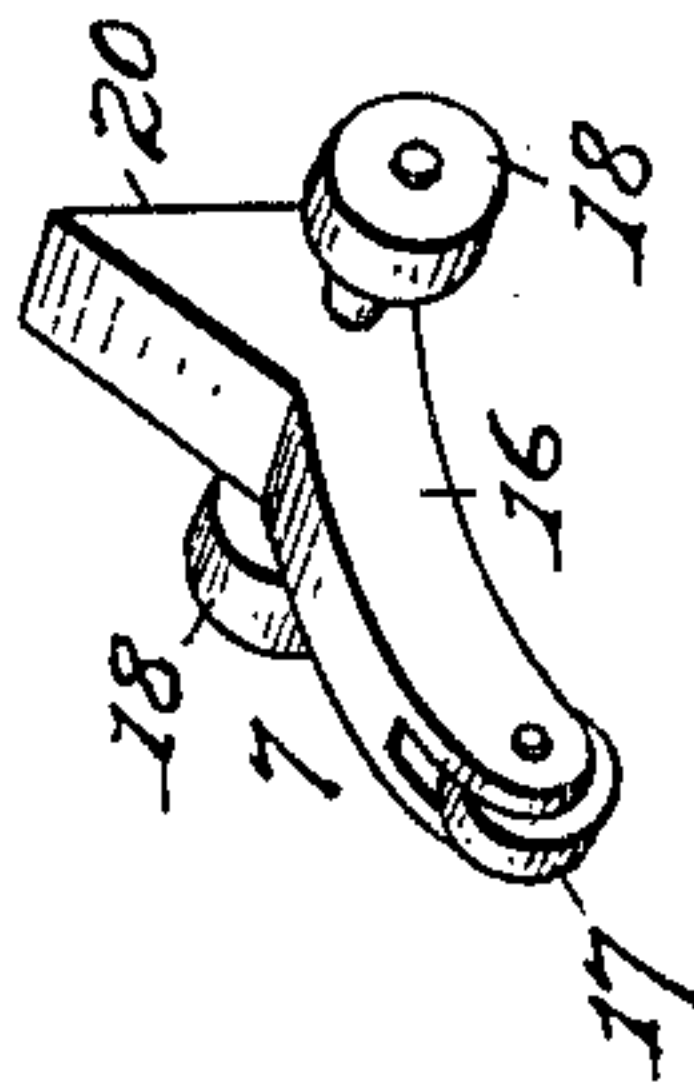


Fig. 8

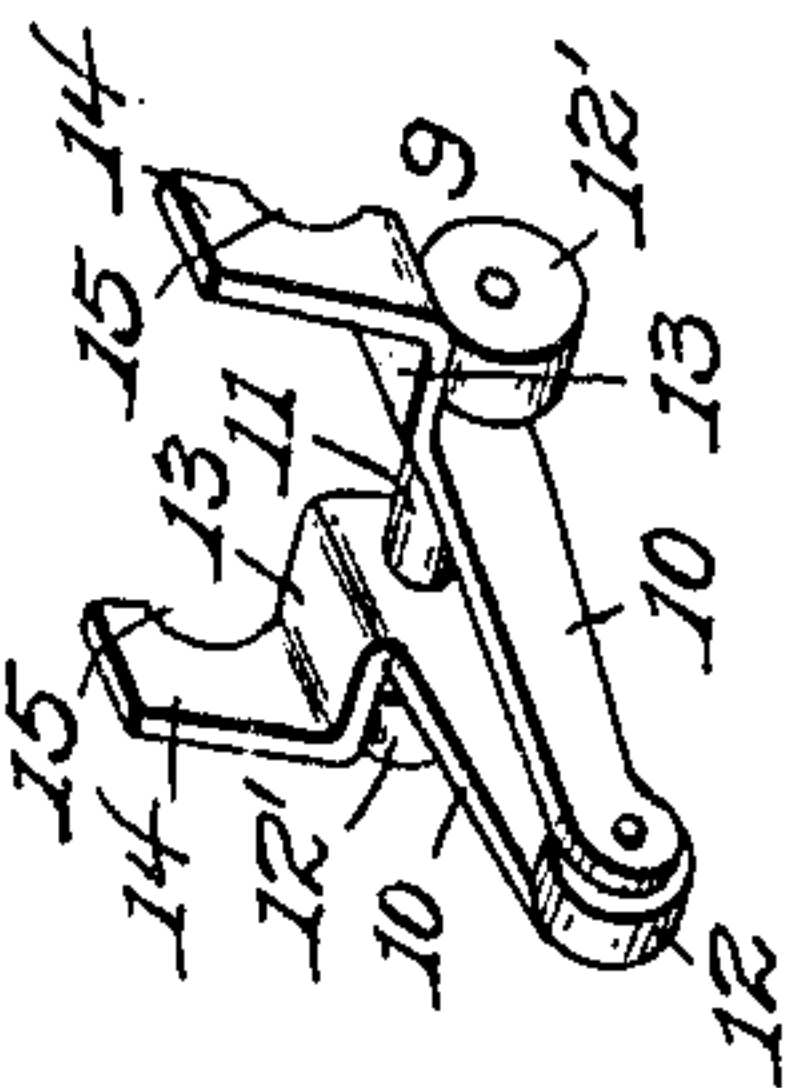
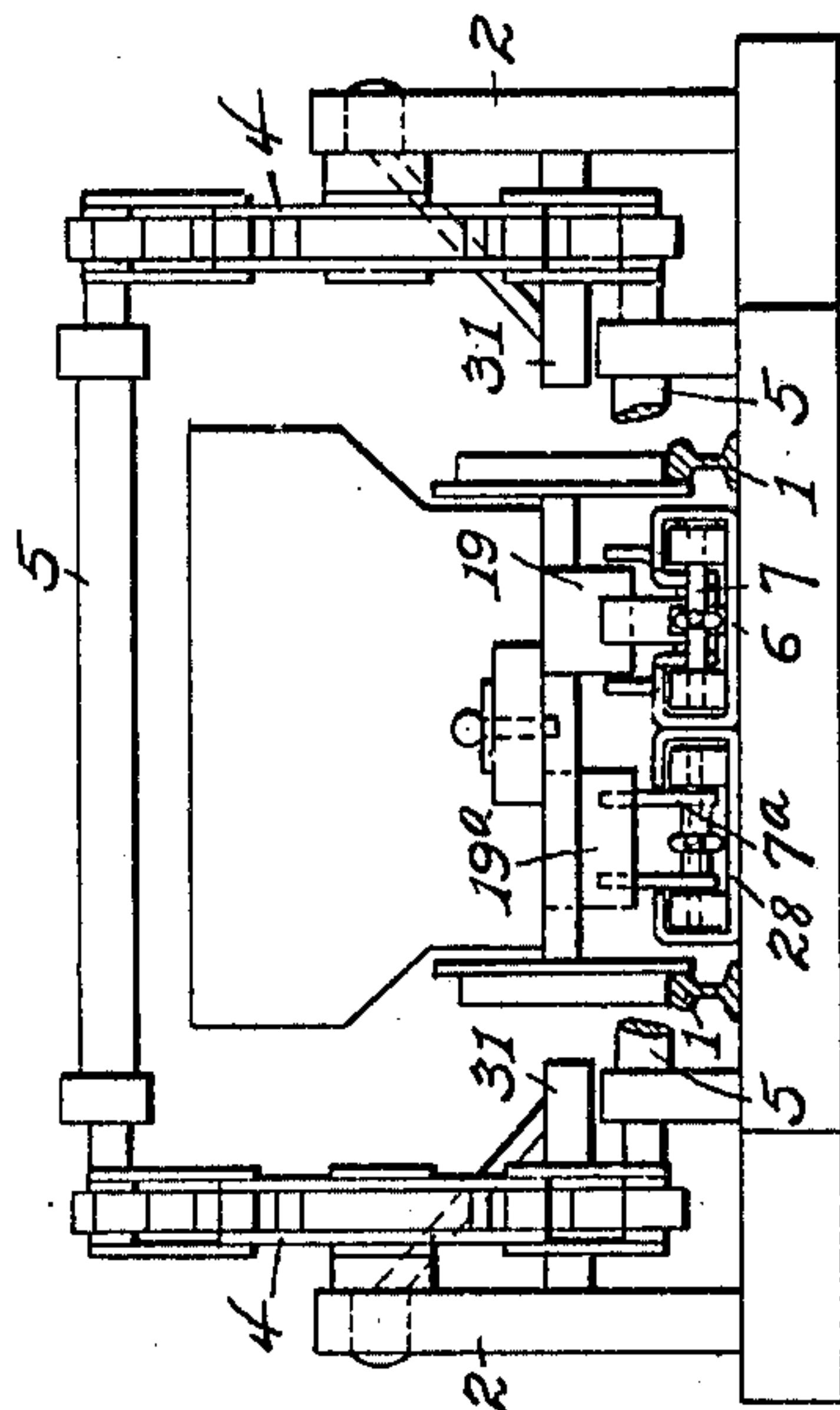


Fig. 7



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# UNITED STATES PATENT OFFICE.

THOMAS J. JORDEN AND JOHN W. PEMBERTON, OF LAFERTY, OHIO.

## FEEDER FOR CAR-HAULS.

955,884.

Specification of Letters Patent.

Patented Apr. 26, 1910.

Application filed August 5, 1909. Serial No. 511,430.

*To all whom it may concern:*

Be it known that we, THOMAS J. JORDEN and JOHN W. PEMBERTON, citizens of the United States of America, and residents of Laferty, county of Belmont, and State of Ohio, have invented certain new and useful Improvements in Feeders for Car-Hauls, of which the following is a specification.

This invention relates to improvements in car-transmission means, and more particularly to what may be termed a feeder for car-hauls.

The primary object of the invention is to provide a simple mechanical device adjacent to the entry to a mine whereby the mine cars of a train are engaged at the foot of an incline or at the approach to the car-haul and moved forward, one at a time, and at regular intervals, into proper position on the car-haul.

A further object is to provide positive car-engaging means the construction of which is such that, when the car has been moved to the proper position, it is automatically released.

With these and other objects in view, the invention finally consists in the particular construction, arrangement and combination of parts which will hereinafter be fully described, reference being herein had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a side elevation of the invention, illustrating a short train of cars upon the approach to the car-haul, the foremost car being shown in position to be engaged and moved forward upon said car-haul; Fig. 2 is a top plan view of the same; Fig. 3 is a view similar to Fig. 1, showing the foremost car moved forward into position and the remaining cars of the train moved forward one car length so that the foremost thereof stands in position to be next engaged and moved upon the car-haul; Fig. 4 is an enlarged rear end elevation; Fig. 5 is an enlarged cross section on the line 5—5, Fig. 3; Fig. 6 is a view similar to Fig. 2, illustrating a modification in the construction; Fig. 7 is an enlarged rear end view of the same; Fig. 8 is an enlarged detail perspective view of the forward dog; and Fig. 9 is a similar view of a car-engaging dog.

Referring to said drawings, in which like reference numerals designate like parts throughout the several views—1 indicates the rails of a section of track which is

equipped with the invention, and journaled in suitable supports 2, located on opposite sides of the track adjacent to and in the rear of the point to which it is desired that the cars be delivered singly, are large sprocket wheels 3, each having passed thereover an endless sprocket chain 4, suitably driven, which parallels the track. Having their ends fixed in opposite sprocket chains and located at spaced distances are transverse rods 5, the purpose of which will presently be made apparent.

Located between the track-rails 1 and extending rearward from a point slightly more than a car-length in front of the sprocket-wheels 3 to a point two or more car-lengths in the rear of said sprocket-wheels is a runway 6 on which travel a plurality of dogs 7 adapted for engaging a car for moving the latter forward along the track, the rear end of said runway being in the form of a flanged trough, as shown at 6'. Said dogs 7 are connected by links 8 and the foremost thereof is connected by links 8' to a dog 9 which is adapted to be engaged by one of the transverse rods 5. Said dog 9 may be of any preferred construction adapted to be engaged by said rods, but preferably consists of two bars 10 between the front ends of which is journaled a supporting roller 12, a shaft 11 fixed in the rear ends of said bars, and to which the links 8' are connected, rollers 12' journaled on the ends of said shaft, and angular members integral with said bars, each of said members consisting of an outwardly extended portion 13 which overlies a roller 12 and an upturned portion 14. Rod-receiving recesses 15 are provided in rear edges of the upturned portions 14, said recesses being adapted to be engaged by the rods 5 as they move forward and to be thereby forced forward along the runway 6. As said dog 9 is thus moved forward, it draws therewith through the intermediacy of the connecting links 8 and 8' the dogs 7. Each of the last-mentioned dogs comprises a member 16 mounted upon rollers 17 and 18, said member having at its front end a vertical face adapted to engage a lug 19 carried on the under side of each car traveling upon the track. An inclined face 20 is also provided upon said member 16 which is adapted to engage said lug 19 of the car when the former is moved rearward so as to effect the upward tipping of the rear end of the member to allow the latter to pass be-



neath said lug, as is shown in Fig. 3. When the dog 9 is carried forward, as previously described, drawing therewith said dogs 7, the foremost of the latter engages the lug 19 of the foremost car on the approach to the car-haul and said car is moved forward along the track. The runway 6 has a recess 21 so positioned that when said car has been moved to proper position, the front end of the dog 9 will drop therein, tipping the angular members thereof, and thus disengaging the transverse rod 5 therefrom, as is clearly shown in Fig. 3. Immediately following such disengagement, the connected dogs are drawn back to their normal positions, by suitable means, the preferred embodiment of such means comprising a weight 22 suspended from the end of a rope or cable 23. Said cable has its opposite ends attached to the rearmost dog 7 and is passed about sheaves 24 and 25, a drum 26, and over a pulley 27, as is clearly shown in Figs. 2 and 4. The coupling between the foremost car in the train and the car next adjacent is withdrawn before said car is engaged to be moved forward, thus allowing the train to stand until the rearmost dog 7 moves up into engagement with the then foremost car of the train, when the latter is moved forward to a position where said foremost car occupies the position from which the first car was moved to the car-haul, as described.

In Figs. 6 and 7 is illustrated a modified construction wherein the car advanced to the car-haul effects the return of the dogs to their normal positions. Said modification comprises two runways 6<sup>a</sup> and 28, the former substantially corresponding to the runways 6, and the latter occupying a position in front of and in parallel alinement with the former, a dog 7<sup>a</sup> movable along said runway 28, but mounted in reverse position, a cable 32 connected at one end to said dog 7<sup>a</sup> and at its other end to the rearmost dog 7, and a sheave 29 about which said cable is passed. As will be obvious, when a car passes along the car-haul, a lug 19<sup>a</sup> carried by said car laterally of the lug 19 and mounted in reverse position engages a dog 7<sup>a</sup> and moves the latter forward along the runway 28 until it reaches and drops into a recess 30 in the front end of said runway, and this movement effects the return of the dogs 7, 7<sup>a</sup> and 9 to their normal positions after having been advanced in moving a car forward to the car-haul. The flanges 6<sup>a</sup> of the flanged portion 6' of the runway 6 overlie the rollers 18 of the dog 7, preventing the latter from being tipped over when they forcibly engage the lugs 19 of cars.

Bars 31 are positioned parallel to and on opposite sides of the track in front of the sprocket wheels 3 so as to overlie the path of movement of the ends of the rods 5, said

bars being adapted to prevent the lifting of a rod 5 out of engagement with the dog 9.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. In a feeder for a car-haul, the combination with a track comprising a car-haul and an approach to said car-haul, of a runway extended along said track, connected dogs movable along said runway, driven means adapted to engage one of said dogs and to carry the same forward and to thereby cause another dog to engage and move a car from said approach to the car-haul.

2. In a feeder for a car-haul, the combination with a track comprising a car-haul and an approach to said car-haul, of a runway extending along said track, connected dogs movable along said runway, driven means adapted to engage one of said dogs and to carry the same forward and to thereby cause another dog to engage and move a car from said approach to the car-haul, and to at the same time cause a third dog to move a car forward along said approach from one position to another.

3. In a feeder for a car-haul, the combination with a track comprising a car-haul and an approach to said car-haul, of a runway extended along said track, connected dogs movable along said runway, driven means adapted to engage one of said dogs and to carry the same forward and to thereby cause another dog to engage and move a car from said approach to the car-haul, and to at the same time cause a third dog to move a car forward along said approach from one position to another, and means for retracting said dogs to normal position after such forward movement.

4. In a feeder for car-hauls, the combination with a track comprising a car-haul and an approach thereto, of sprocket wheels located on opposite sides of the track between said car-haul and its approach, chains passed over said wheels, bars carried by said chains transversely of the track, and means adapted to be engaged by said bars whereby a car is moved from said approach to said car-haul.

5. In a feeder for car-hauls, the combination with a track comprising a car-haul and an approach thereto, of sprocket wheels located on opposite sides of the track between said car-haul and its approach, chains passed over said wheels, bars carried by said chains transversely of the track, and means adapted to be engaged by said bars whereby a car is moved from said approach to said car-haul, and means connected to the first named means whereby a train is moved forward along said approach to a point where the foremost car thereof occupies the position occupied by the first-mentioned car before the movement mentioned.



6. In a feeder for car-hauls, the combination with a track comprising a car-haul and an approach thereto, of sprocket wheels located on opposite sides of the track between said car-haul and its approach, chains 5 passed over said wheels, bars carried by said chains transversely of the track, and means adapted to be engaged by said bars whereby a car is moved from said approach to said 10 car-haul, and means connected to the first-named means whereby a train is moved forward along said approach to a point where

the foremost car thereof occupies the position occupied by the first-mentioned car before the movement mentioned, and means 15 whereby both of the aforesaid means is retracted after forward movement.

In testimony whereof we affix our signatures in presence of two witnesses.

THOMAS J. JORDEN.

JOHN W. PEMBERTON.

Witnesses:

JAS. S. BETHEL,  
LIBERIA FOWLER.