

J. PUSEY.
Apparatus for Delivering Railroad-Ties from Cars
No. 225,236.
Patented Mar. 9, 1880.

Fig. 4

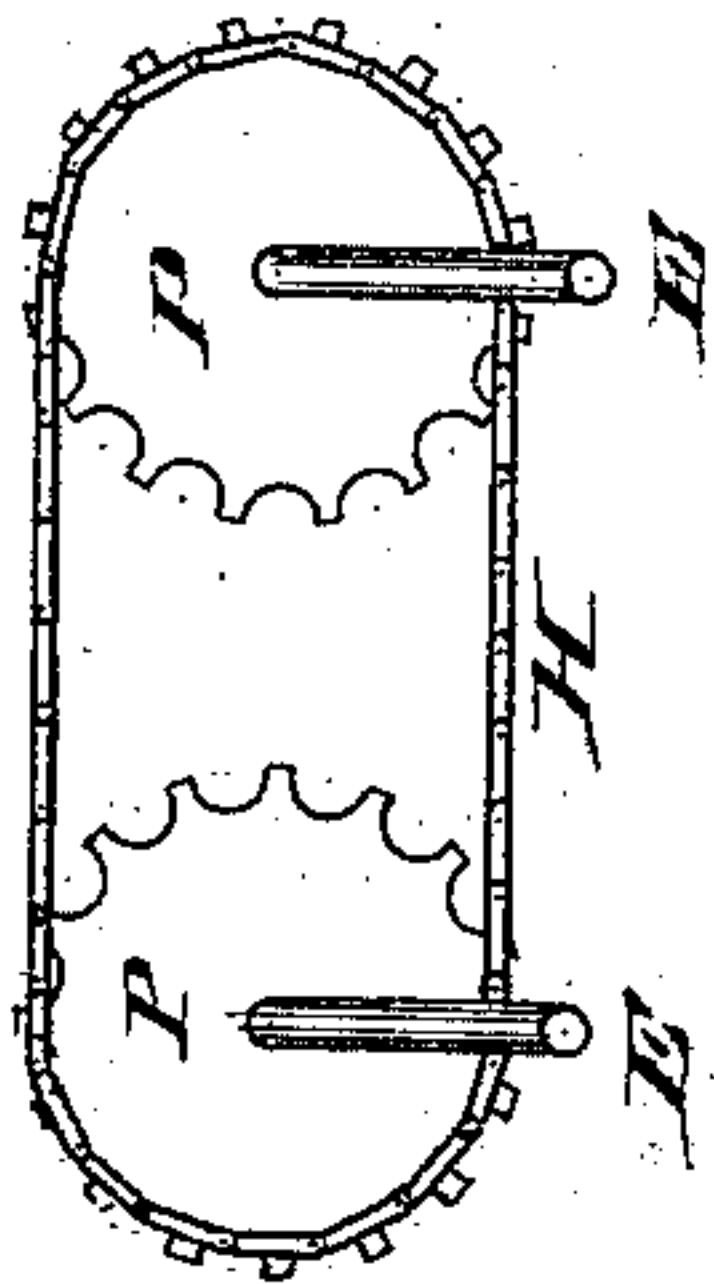


Fig. 1

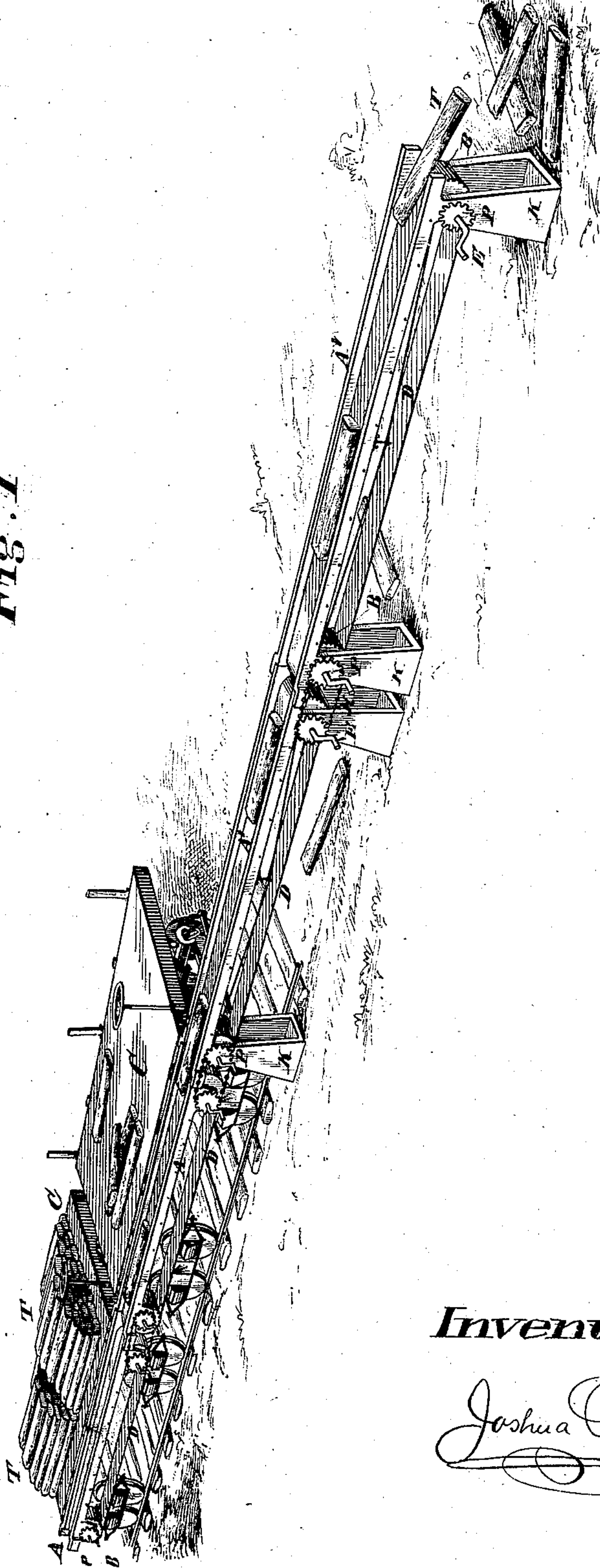
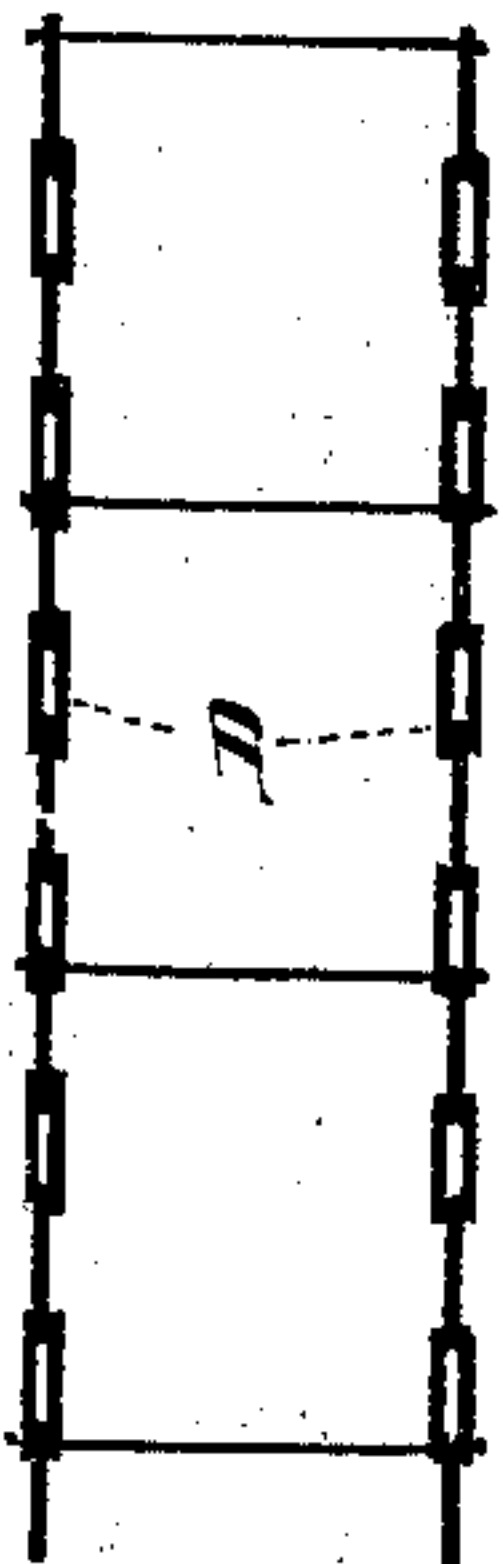


Fig. 5



Attests

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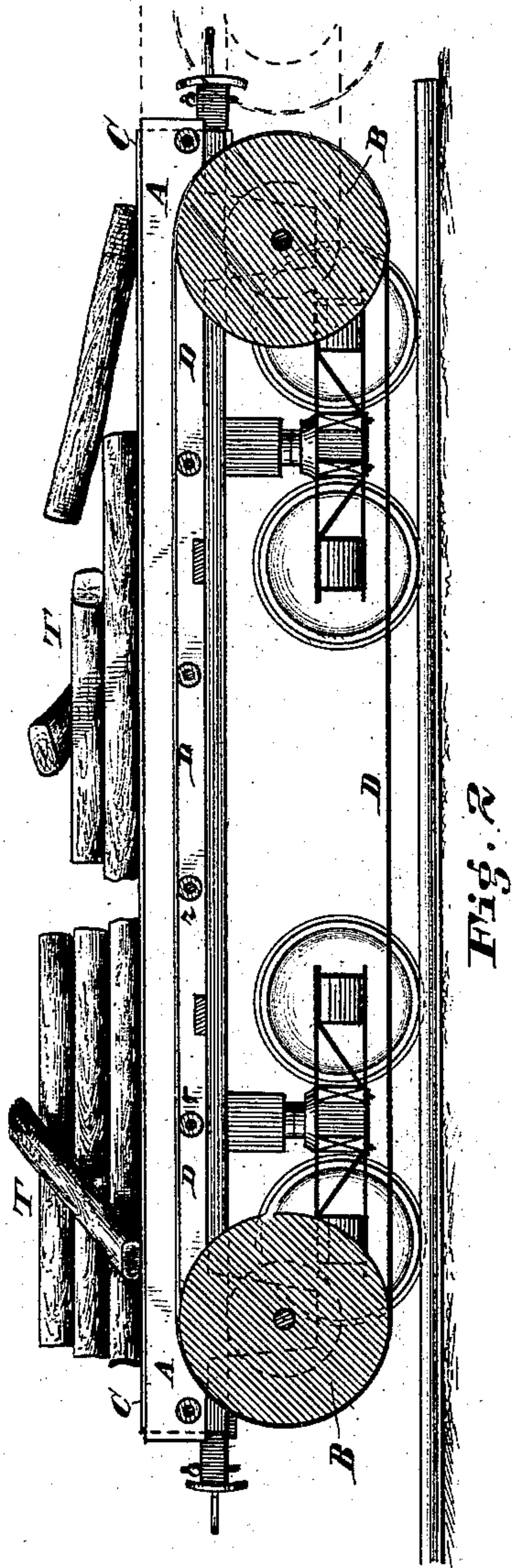


Fig. 2

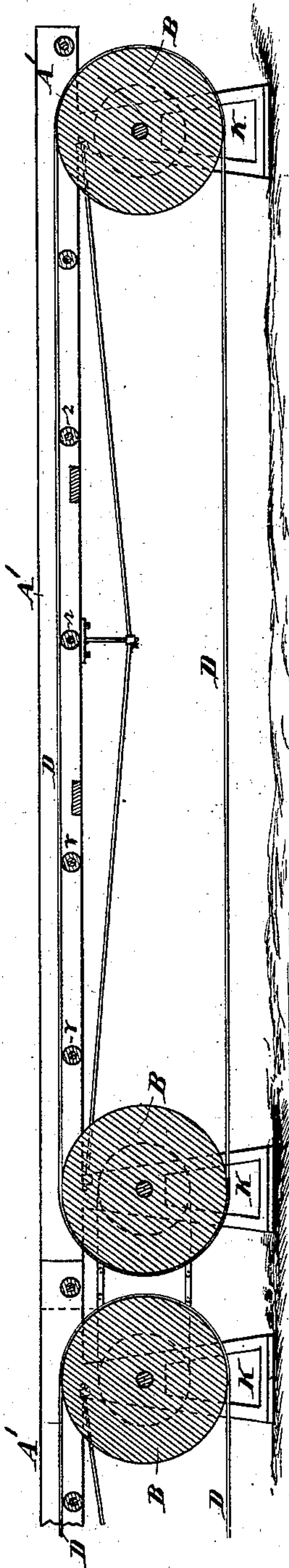


Fig. 3

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UNITED STATES PATENT OFFICE.

JOSHUA PUSEY, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO CHARLES ROBB WILSON, OF SAME PLACE.

APPARATUS FOR DELIVERING RAILROAD-TIES FROM CARS.

SPECIFICATION forming part of Letters Patent No. 225,236, dated March 9, 1880.

Application filed November 15, 1879.

To all whom it may concern:

Be it known that I, JOSHUA PUSEY, of the city and county of Philadelphia, in the State of Pennsylvania, have invented a new and useful Improvement in Apparatus for Delivering Railroad-Ties from Cars, of which the following is a specification.

My invention is intended to be used in the construction of railroads, and is for the easy and rapid conveyance of railway-ties from the train of cars to points at or near where they are to be laid in advance of the construction-train. Such apparatus is particularly useful in those sections of country wherein the ties have to be brought a considerable distance from the rear, and where horses and teams cannot well be had or be worked to advantage. A device for this object has been heretofore and is, I believe, now in use. It, however, relies chiefly upon gravity for transporting the ties from the cars, the former being deposited off the latter into a simple trough or chute, with transverse rollers attached to the sides of the cars in sections, and inclined from the rear end of the hindmost car down and extending beyond the front end of the foremost car, the free projecting end or section being guyed up from the car.

It is obvious that, owing to the required inclination or pitch of the chute, there is in this apparatus a contracted limit to the distance from the rear car to the forward end of the chute, to which the ties can be conveniently transported.

The object of my invention is to provide a simple contrivance which may be extended to any desired distance along the sides and ahead of a train, and whereby ties may be continuously and rapidly carried forward mechanically without regard to the grade of the road-bed.

Figure 1, Sheet 1, of the accompanying drawings is a perspective view, showing my invention as applied to and operated with a construction-train. Fig. 2, Sheet 2, is a longitudinal vertical section (enlarged) through the middle of one of the ways or troughs A, Fig. 1, attached to car C. Fig. 3, Sheet 2, is a like sectional view of one of the ways A', Fig. 1, which rest upon the ground. Fig. 4, Sheet 1, is an enlarged view of two adjacent wheels,

P, and endless chain H, seen in Fig. 1. Fig. 5, Sheet 1, shows a piece of the endless chain-belt or apron D, Figs. 1, 2, and 3, which I purpose using instead of the ordinary close belt or apron.

A A' are trough-like ways about as long as a car, and made as strong and light as possible. Some of these, A, may be so attached to the sides of cars C as to be readily removable, while others, A', may rest upon the ground upon feet or bases K, or all may thus stand upon the ground, the tops of the sections being adjusted so as to be about even with the platforms of the cars, in order to avoid the necessity of lifting the ties to any height in depositing them in the troughs A, as hereinafter described.

At each end of said sections or frames are drums B, around which passes an endless apron, D; or a double chain-belt with cross- rods, (similar to that represented by Fig. 5,) in connection with a sprocket-wheel, is preferable, on account of durability. D passes over rollers r, Figs. 2 and 3, placed at suitable intervals across the frames A A', although the rollers may be dispensed with if the sections be short.

The journals of drums B, or one of each section, are provided with cranks E; or intermediate gearing may be employed.

As many of these complete sections or roller-frames as it may be desired to make use of are fitted end to end, as seen in Fig. 1, so as practically to secure a continuous channel in about the same horizontal plane from the rear end of the hindmost car to the extreme end of the foremost section. A connection is made between the adjoining sections by means of an endless belt or chain, H, passing around pulleys or sprocket-wheels P, fixed to the journals of drums B.

By this device it is plain that when any one of the latter is turned all the others must revolve in the same direction, and thus the effect is the same as if a single endless apron the length of the combined sections were put in motion.

If hand-power be used, it may be applied to any one or more of the sections A or A' where most convenient. The entire series of aprons

may, however, be propelled by a small portable engine on the train. The adjacent pulleys P of two sections may be geared with an idle-wheel between, the effect being the same as if the simple belt or chain and pulleys be used, the latter, however, being preferred.

Fig. 1 represents my invention as it appears in actual use on a straight and level road-bed. Ties T upon cars C are deposited in the troughs A (which are made somewhat wider than the width of a tie) upon the moving apron D, and are carried forward to be taken off beyond the train, as desired, and laid in place across the road-bed. The rails are then laid and spiked down. The sections A', standing upon the ground, are moved ahead a sufficient distance to permit the train to move forward on the rails just laid. The sections are readjusted end to end. The endless aprons are again put in motion, and the described operation is repeated until the supply of ties and rails is exhausted.

This apparatus may be used to convey rails as well as cross-ties. When the road is on a

curve those sections upon the ground must necessarily be placed at an angle to each other, in which case the belts or chains H will have to be thrown off and each section worked independently; or this may be obviated by using devices well known to mechanics and engineers for altering the angle or direction of motion.

Having thus described my invention, I claim—

1. The combination, with a railway car or cars, of troughs or frames A, provided with endless aprons, substantially as and for the purposes described.

2. One or more troughs or frames with endless aprons D, provided with feet or bases K, and extending beyond the forward car, in combination with like frames A and aprons attached to car C, whereby ties T may be conveyed ahead of the train, substantially as shown and described.

JOSHUA PUSEY.

Witnesses:

WM. H. CARSON,
SYLVESTER A. SCHMITT.