

J. K. Adams,

Track Layer.

No. 100834.

Patented Mar. 15, 1870.

Fig. 1.

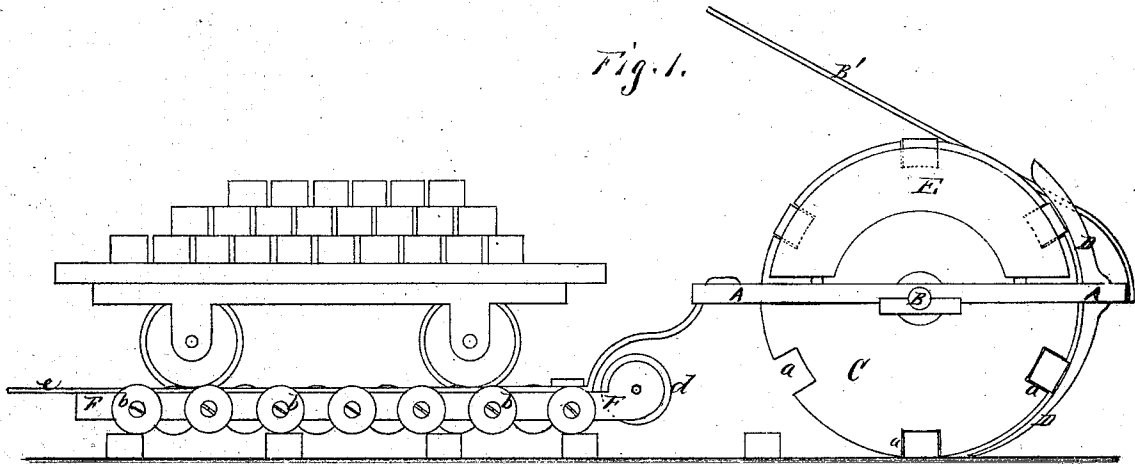
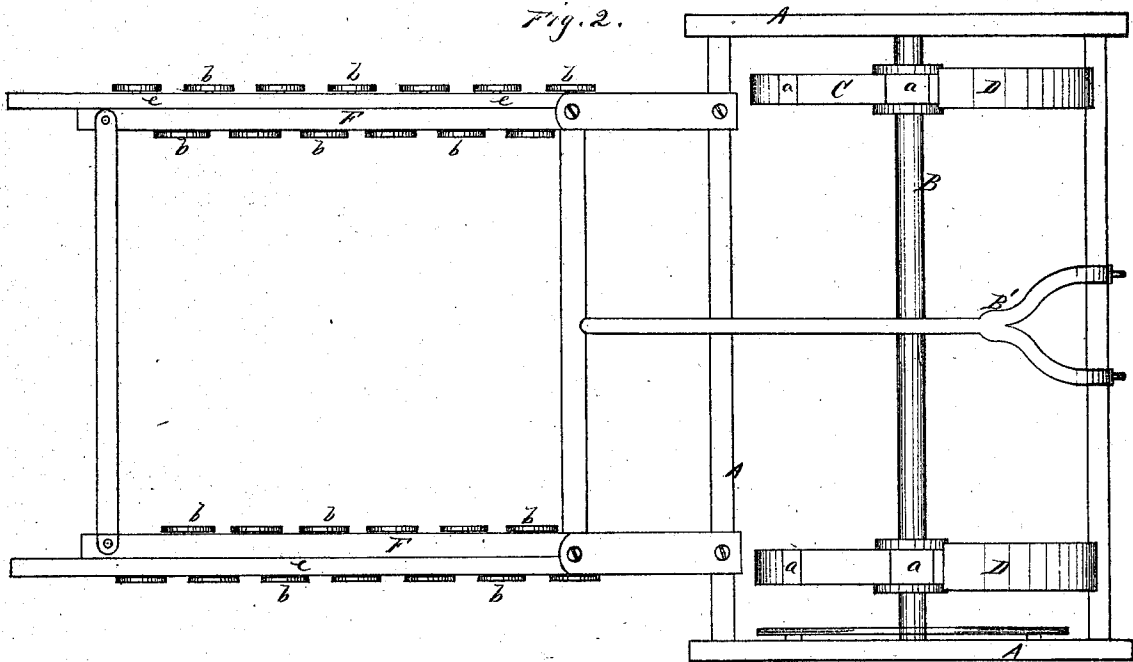


Fig. 2.



Witnesses:
Geo H. Strong
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JOHN R. ADAMS, OF SAN FRANCISCO, CALIFORNIA.

Letters Patent No. 100,834, dated March 15, 1870.

IMPROVEMENT IN TRACK-LAYING MACHINE.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, JOHN R. ADAMS, of the city and county of San Francisco, State of California, have invented an Improved Tie-Laying Machine; and I do hereby declare the following description and accompanying drawings are sufficient to enable any person skilled in the art or science to which it most nearly appertains to make and use my said invention and improvements without further invention or experiment.

My invention relates to an improved machine for laying down, in regular order, the ties which bind the opposite rails of a railroad track.

The machine is intended not only to do the work with greater dispatch than it can be done by any other known method, but also to do it at a much less cost, saving more than one-half in the laying of ties; and

It consists, first, of a pair of wheels moving inside of a properly-constructed frame, and upon the same shaft.

The wheels are so constructed that they receive the ties in recesses made in their peripheries, and lay these down upon the prepared bed as they revolve, carrying them around one-half of their revolution.

A low car, with numerous small wheels, is attached to the frame and follows after it, the forward trucks moving upon the ties already laid.

Upon this low car, the trucks or car which carries forward the ties from the rear is propelled, so as to place them in a convenient position for the attendants to reach them in order to deposit them in the recesses in the wheels.

In order to more fully illustrate and explain my invention, reference is had to the accompanying drawings forming a part of this specification, in which—

A represents a square or other suitable frame, having the shaft or axle B extending across it, bearing in the timbers at each side, and having the pole B' attached in front.

The wheels C C are placed upon this shaft at the required distance apart. The wheels have cut in their peripheries recesses *a a a* at regular distances apart, the distance between each two being equal to the width it is desired to maintain between the ties when laid. These recesses are of sufficient width and depth to receive a tie and allow it to lie flush with the rim of the wheels.

The wheels are placed upon the axle so that the recesses in their peripheries will come opposite each other at all points of their revolution.

A curved guard, D, is fixed in front of each of the wheels, and serves to prevent the ties from leaving

the recesses in the wheels until they have been carried to their proper places to be deposited.

E is a removable guide, which may be placed at either side of the frame, and against which one end of each and every tie is placed in order to align them.

Attached by some suitable means to the rear of the frame A is another frame, F, which is mounted upon a number of small wheels or rollers, *b b b*, placed alternately upon opposite sides of each rail, or otherwise suitably arranged to move over the ties which have just been deposited by the wheels, a somewhat larger wheel, *d*, being secured a little above the smaller wheels *b* at the front end of each side timber of the frame, and which serves to lift the frame upon the ties without displacing them.

Upon the upper surface of each of the side timbers of the frame F is placed a flat or other rail, *e*, so as to convert them into a track of about an even height with the rail which is being laid upon the ties, and upon which the trucks or car which brings forward the ties from the rear may be run, in order to place them in a position convenient to be lifted into the recesses in the wheels.

The operation of my machine is as follows:

The track or roadway having been prepared for the reception of the ties by the advance workmen, my machine is placed in position upon it, a few ties having been first laid upon which to place the frame F with its load of ties.

The frame A is then drawn forward along the roadway by means of horse or other power. One man is stationed upon each side of the frame A, and as the wheels revolve, each one seizes the end of a tie and places it in the recesses in the wheels as it revolves, being careful to abut one end against the guide E, according to which side it is desired to align.

As the wheels revolve, they carry the ties around until they pass the guard D, when they are deposited upon the road-bed in proper style.

During this time the rear frame moves upon the ties which have been laid by the wheels, while workmen follow in the rear, laying and securing the rails.

When one car load of ties have been laid, the empty car is run back out of the way, and another loaded one takes its place, when the same operation above recited is repeated.

This machine will save a vast amount of time and labor in the construction of railways, obviating the necessity of hauling forward the ties for a distance of two or three miles in advance of the completed end of the track, and doing the work always with almost mathematical skill.

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

1. The recessed wheels C, in combination with a guard, D, or equivalent device, substantially as and for the purpose herein described.
2. In combination with the wheels C and guard D, the removable guide E, or equivalent device, substantially as and for the purpose herein described.
3. The tender-frame F, mounted upon a number of

small wheels suitably arranged to move upon the ties, and provided with the side rails e, substantially as described, for the purpose set forth.

In witness whereof I have hereunto set my hand and seal.

JOHN R. ADAMS. [L. S.]

Witnesses:

W. R. BOONE,
GEO. H. STRONG.