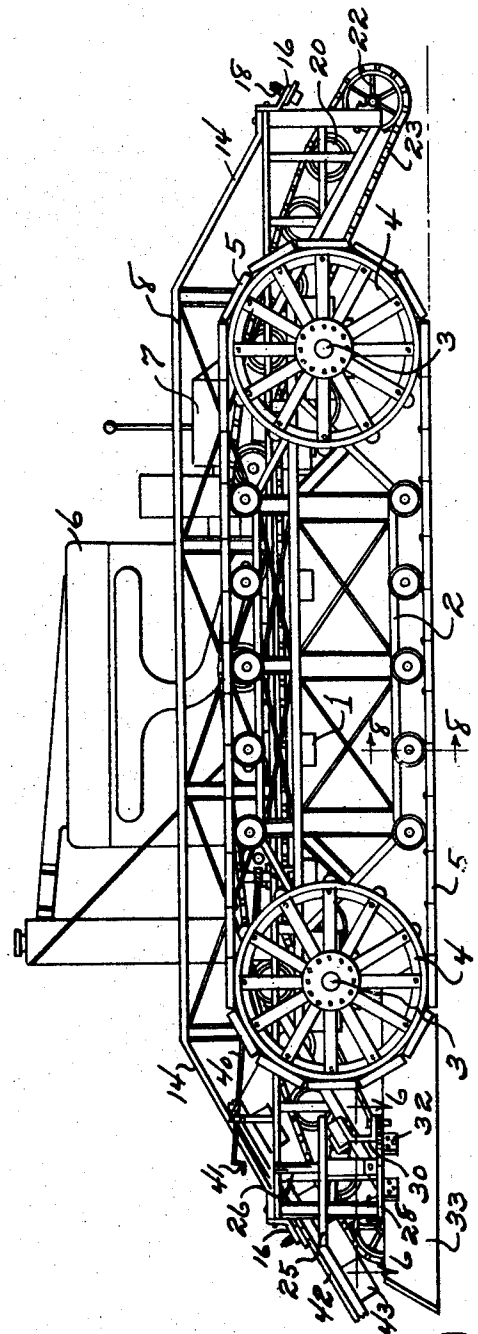
March 29, 1927. 1,622,970

R. PAYNE

ROAD BED BUILDING MACHINE

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Fig. 1.



Rosco Payne INVENTOR

BY Victor J. Evans

ATTORNEY

WITNESS: John Denman

March 29, 1927. 1,622,970

R. PAYNE

ROAD BED BUILDING MACHINE

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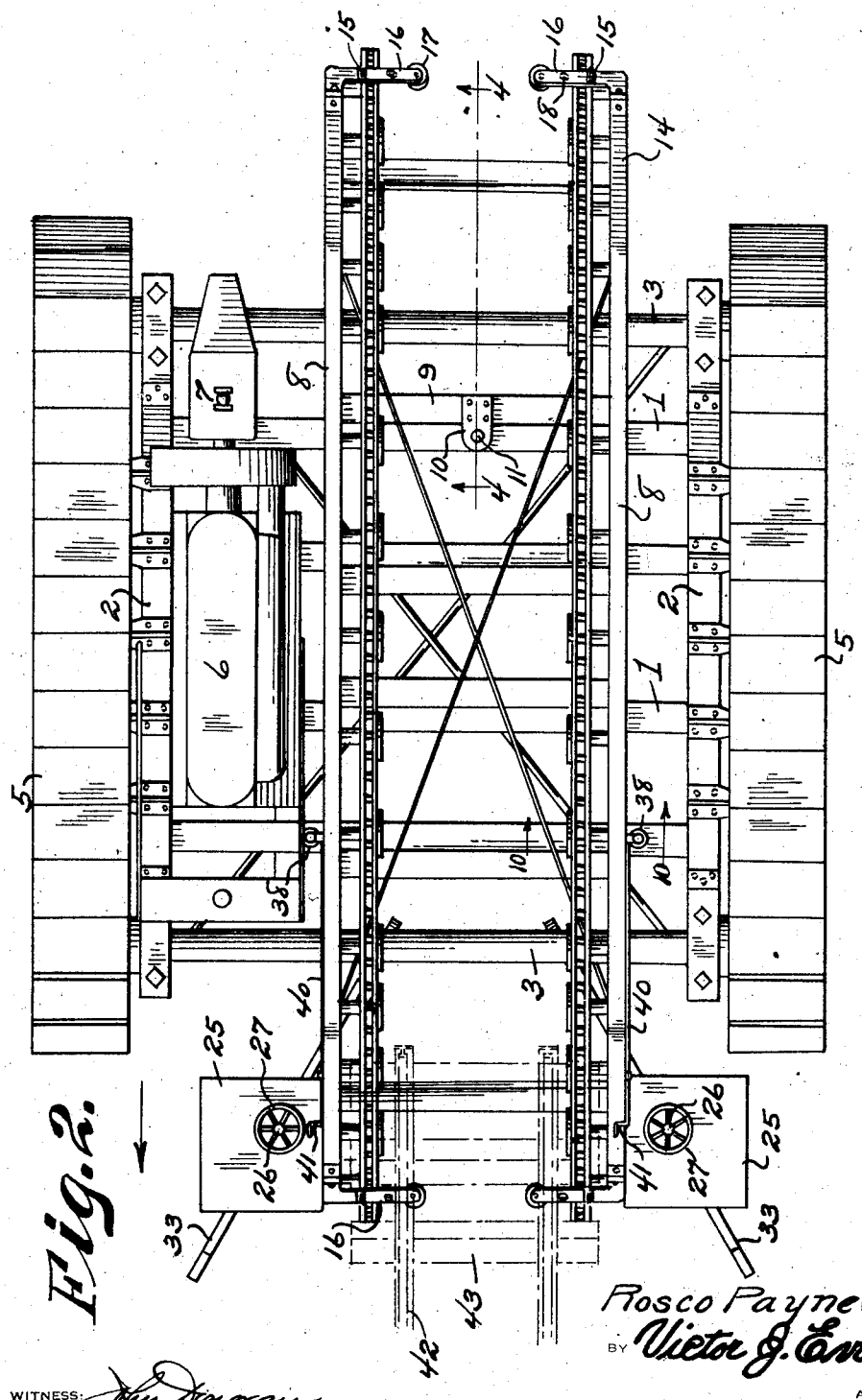


Fig. 2.

Rosco Payne INVENTOR

BY Victor J. Evans

ATTORNEY

WITNESS: John Donovan

March 29, 1927. 1,622,970

R. PAYNE

ROAD BED BUILDING MACHINE

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Fig. 10.

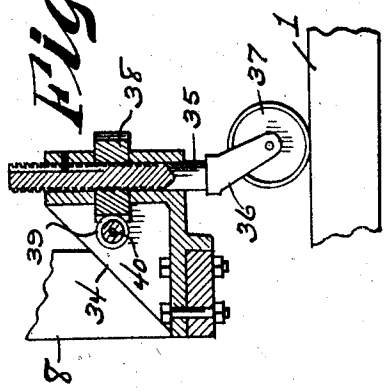
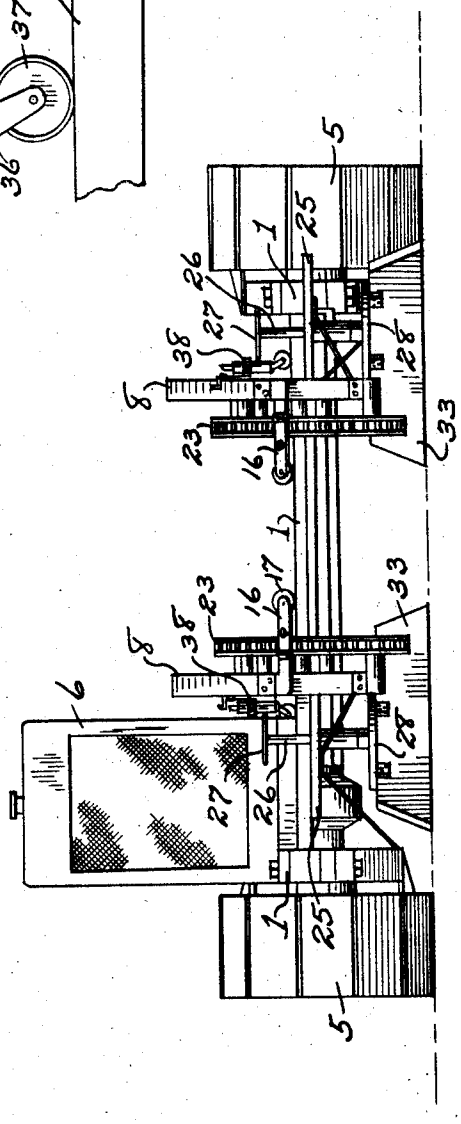


Fig. 3.



Rosco Payne INVENTOR

BY Victor J. Evans

ATTORNEY

WITNESS: John Donovan

March 29, 1927. 1,622,970

R. PAYNE

ROAD BED BUILDING MACHINE

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Fig. 4.

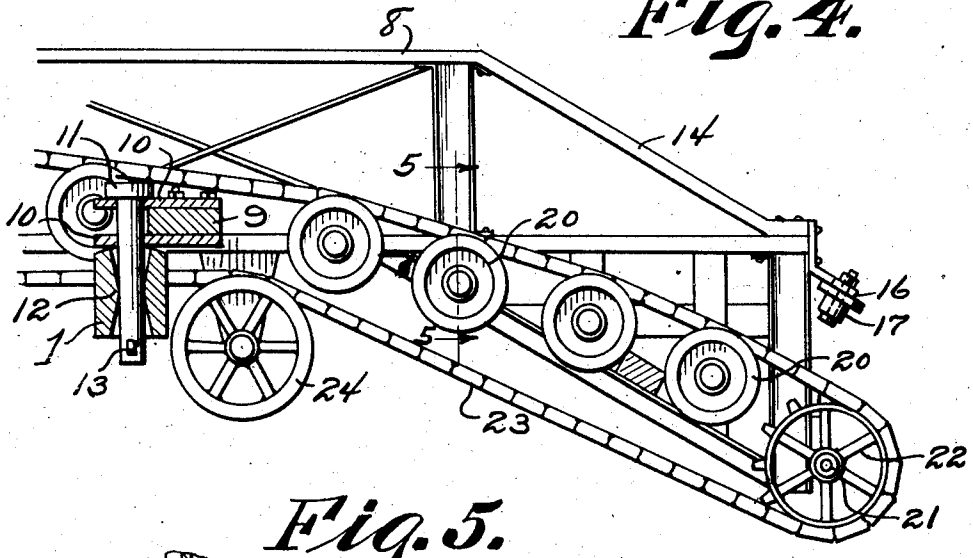


Fig. 5.

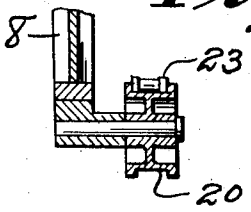


Fig. 6.

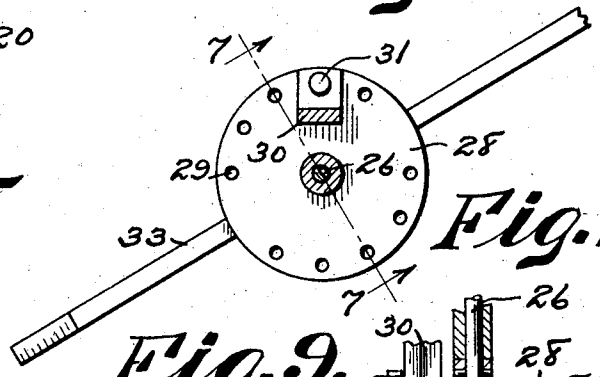


Fig. 8.

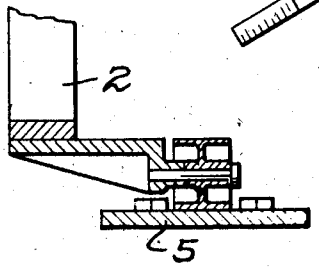
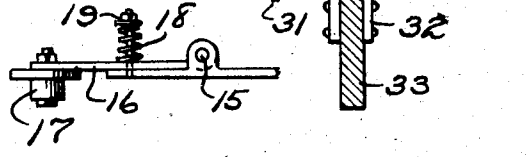


Fig. 7.

Fig. 9.



Rosco Payne
INVENTOR

BY Victor J. Evans
ATTORNEY

WITNESS: John Moran

Patented Mar. 29, 1927. 1,622,970

UNITED STATES PATENT OFFICE.

ROSCO PAYNE, OF MACEDONIA, ILLINOIS.

ROAD-BED-BUILDING MACHINE.

Application filed September 22, 1926. Serial No. 137,160.

My present invention has reference to a railway road bed building machine and has for its primary object the provision of means for simplifying and improving the existing art by the provision of a machine for this purpose, whose action throughout is automatic and which embodies means for elevating the track, depositing dirt for the bed beneath the raised track, and thereafter lowering the track onto its bed, the machine traveling the entire length of the track.

A further object is the provision of a railroad bed building machine which will dispense with the use of the trestles ordinarily employed in this connection, the said trestles having their top portions disposed over the track, the dirt cars traveling onto the trestles, therefrom through the trestles onto the track, the process requiring manual labor in elevating the track and thereafter tamping the dirt to provide the bed for said track.

A further object is the provision of a railroad bed building machine by whose use the bed for a railway track may be constructed in an easier manner than has to my knowledge heretofore been attempted and with a less employment of manual labor.

To the attainment of the above broadly stated objects and many others which will present themselves as the nature of the invention is better understood, the improvement further resides in certain novel features of construction, combination and operative association of parts, a satisfactory embodiment of which is disclosed by the accompanying drawings.

In the drawings:

Figure 1 is a side elevation of my improvement.

Figure 2 is a top plan view thereof.

Figure 3 is a front elevation thereof.

Figure 4 is a sectional view on the line 4—4 of Figure 2.

Figure 5 is a sectional view on the line 5—5 of Figure 4.

Figure 6 is a detail sectional view approximately on the line 6—6 of Figure 1.

Figure 7 is a sectional view on the line 7—7 of Figure 6.

Figure 8 is a sectional view on the line 8—8 of Figure 1.

Figure 9 is a side elevation of one of the trackway engaging rollers and the mount therefor.

Figure 10 is a detail sectional view approximately on the line 10—10 of Figure 2.

In carrying out my invention, I make use of a frame that comprises longitudinal bars or plates connected by transverse bars or plates 1. Journaled through suitable bearings at the ends of the longitudinal plates or sides 2 of the frame there are shafts 3—3 upon whose ends there are fixed wheels 4. The wheels are peripherally cogged, and engage in suitable notches in the links 5 of endless caterpillar chains. Supported on the frame, to one side of one of the caterpillar chains, there is a motor 6, and this motor is hitched to one of the shafts 3, whereby to impart motion to the caterpillars and consequently to the frame. Suitable control means 7 is provided for the motor, whereby the same may be stopped, started, thrown into reverse or the speed thereof regulated.

Supported centrally on the top of the frame of the caterpillar, there is an open frame in the nature of a platform or bridge. This bridge includes parallel side members 8 of a length greater than that of the caterpillar frame. The side members 8 are connected by transverse members 9, and on one of these members 9 there are upper and lower laterally extending plates 10 and passing through an opening in the projecting ends of these plates there is a headed pin 11. This pin passes through an opening in one of the transverse members 9 of the caterpillar frame. As disclosed by Figure 4 of the drawings, the opening in the member 9 of the frame has its bore inclined inwardly from its ends to its center, so that the shoulder 12 provided at the center of the said bore contacts with the pin 11. A transverse element, such as a cotter pin 13, passes through the end of the pivot pin 11. In this manner it will be noted that the bridge is pivotally associated with the caterpillar frame. The side members 8 of the bridge have their ends inclined downwardly, as indicated for distinction by the numerals 14. The extremities of the inclined portions 14 of the bridge have hingedly secured thereto, as at 15, inwardly directed plates 16, and journaled on the outer end of each of the plates 16 there is a flanged roller 17. The plates 16 that provide the mounts for the rollers are influenced by springs 18 secured on adjustable means 19 that are connected to the

inturned extremities of the angle ends 14 of the bridge.

Extending inwardly from the sides 8 of the bridge, at spaced intervals throughout the length of the said sides there are stub shafts on which are mounted grooved wheels 20, and on the ends, adjacent to the lower ends of the inclined portions 14 of the bridge, there are other inwardly directed stub shafts 21 on which there are journaled sprocket wheels 22. Around these sprocket wheels and guided between the flanges of the rollers 20 there are endless sprocket chains 23. The sides of the bridge have depending brackets on which are journaled stub shafts of grooved wheels 24 that support the lower lead of the endless sprocket chains 23.

Suitably supported on the downwardly inclined ends 14 of the sides of the bridge, at the forward end of the device, there are outwardly extending platforms 25, respectively. Journaled through suitable bearings in the platforms 25 there are posts or rods 26 having wheels 27 fixed on the upper ends thereof. Beneath the platform each rod 26 has fixed thereon a flat disc or wheel 28, and each of these discs or wheels is provided with spaced apertures 29. Supported from each platform 25 and movable through one of the openings 29 there is a member 30 that carries a pin 31 that is designed to pass through one of the said openings 29. The under face of the wheel or disc 28 is provided with spaced ears 32, and fixedly secured between these ears there are scraper blades 33.

On the side members 8 of the bridge there are secured brackets 34, Fig. 9. The brackets are in the nature of angle members and have their outer and widened ends formed with sockets through which pass the shanks or stems 35 for the mounts 36 of rollers 37. The shanks 35 are threaded and the socket portions of the brackets 34 are notched for the reception of toothed wheels 38 that have threaded bores to engage with the shanks 35. The wheels 38 have their teeth engaged by the teeth of worms 39, the shafts 40 for the worms being suitably journaled through the brackets and through other bearings on the sides of the bridge, and the outer ends of these shafts are cranked, as at 41. By this arrangement it will be noted that the bridge may have its forward end raised or lowered with respect to the frame for the caterpillar, and by mounting the scrapers 33 as above described it will be apparent that the same may be disposed in proper angle relation to sweep or force dirt beneath a track.

The operation of the improvement may be briefly described as follows: It is, of course, to be understood that the tractors of the caterpillar are of a materially greater distance apart than the rails 42 of the construction track, and also that the ends of the said rails 42 are connected together and the said rails are spiked on ties 43. Dirt is dumped along the sides of the track. The endless chains 23 are spaced a distance apart less than the length of the ties 43. The rollers 17 are also arranged in pairs that are suitably spaced to engage with the inner faces or in the fishing spaces of the rails 42. One end of the track is manually raised so that the rails will be engaged by the rollers 17 and the ties will rest on the endless chains. The tractor is then propelled in the direction of the arrow in Figure 2 of the drawings. This forward movement of the tractor will bring the track over the entire length of the endless chains and will cause the blades 33 to force the earth beneath the elevated track. As the tractor advances the portion of the track projected through the end of the machine will again rest on the ground. It will be seen that a road bed can be thus made for the entire length of the track in an easy, expeditious and efficient manner and with no physical labor upon the part of the operator except for the first elevation of the track.

The simplicity of the construction and its many advantages will, it is thought, be apparent to those skilled in the art to which such invention relates, but obviously I do not wish to be restricted to the details of construction herein set forth and therefore hold myself entitled to such changes therefrom as fairly fall within the scope of what I claim, providing, of course, that the same do not depart from the spirit or sacrifice any of the advantages of the invention.

Having described the invention, I claim:—

1. A road building machine for railway tracks, comprising a motor driven caterpillar tractor, an open bridge pivotally supported on the frame of the tractor, and said bridge having its sides provided with downwardly inclined ends, inwardly directed stub shafts on the sides of the bridge, grooved rollers journaled on certain of the stub shafts, sprocket wheels journaled on the ends of the stub shafts, endless chains trained around the sprocket wheels and guided on the grooved rollers and said chains designed to support the ties of a track thereon to hold the same temporarily in elevated position, rollers on the inner corners of the sides of the bridge designed to engage with the rails of the track, and angularly disposed scraper blades at the forward corners of the bridge.

2. A road building machine for railway tracks, comprising a motor driven caterpillar tractor, an open bridge pivotally supported on the frame of the tractor, and said bridge having its sides provided with downwardly inclined ends, inwardly directed stub shafts on the sides of the bridge, grooved rollers journaled on certain of the stub shafts, sprocket wheels journaled on the ends

of the stub shafts, endless chains trained around the sprocket wheels and guided on the grooved rollers, said chains designed to support the ties of a track thereon to hold the same temporarily in elevated position, rollers on the inner corners of the sides of the bridge designed to engage with the rails of the track, angularly disposed scraper blades at the forward corners of the bridge and means for adjusting the bridge with respect to the frame of the platform and angularly arranged road scraper blades at the forward corners of the bridge.

3. A road building machine for railway tracks, comprising a motor driven caterpillar tractor, an open bridge pivotally supported on the frame of the tractor, and said bridge having its sides provided with downwardly inclined ends, inwardly directed stub shafts on the sides of the bridge, grooved rollers journaled on certain of the stub shafts, sprocket wheels journaled on the ends of the stub shafts, endless chains trained around the sprocket wheels and guided on the grooved rollers and said chains designed to support the ties of a track thereon to hold the same temporarily in elevated position, rollers on the inner corners of the sides of the bridge designed to engage with the rails of the track, angularly disposed scraper blades at the forward corners of the bridge, spring means for the mounts of the rollers, means for vertically adjusting the forward end of the bridge with respect to the frame of the tractor, and angularly adjustable scraper blades at the forward corners of the bridge.

4. A road building machine for railway tracks, comprising a motor driven caterpillar tractor, an open bridge pivotally supported on the frame of the tractor, and said bridge having its sides provided with downwardly inclined ends, inwardly directed stub shafts on the sides of the bridge, grooved rollers journaled on certain of the stub shafts, sprocket wheels journaled on the ends of the stub shafts, endless chains trained around the sprocket wheels and guided on the grooved rollers and said chains designed to support the ties of a track thereon to hold the same temporarily in elevated position, rollers on the inner corners of the sides of the bridge designed to engage with the rails of the track, angularly disposed scraper blades at the forward corners of the bridge, an outstanding platform on the forward corners of the bridge, means operable from each platform for vertically adjusting the bridge on the frame of the tractor, a rod journaled through each platform, a hand operating wheel for each rod, a flat wheel having peripheral apertures on the outer end of each rod having a vertically adjustable pin on each platform movable into any of the apertures on the wheel, and a scraper blade centrally secured to the under face of each wheel.

In testimony whereof I affix my signature.

ROSCO PAYNE.