L. TANNER.

TRACK RAISING MACHINE.

APPLICATION FILED JUNE 27, 1908.

932,829. Patented Aug. 31, 1909.

2 SHEETS—SHEET 1.

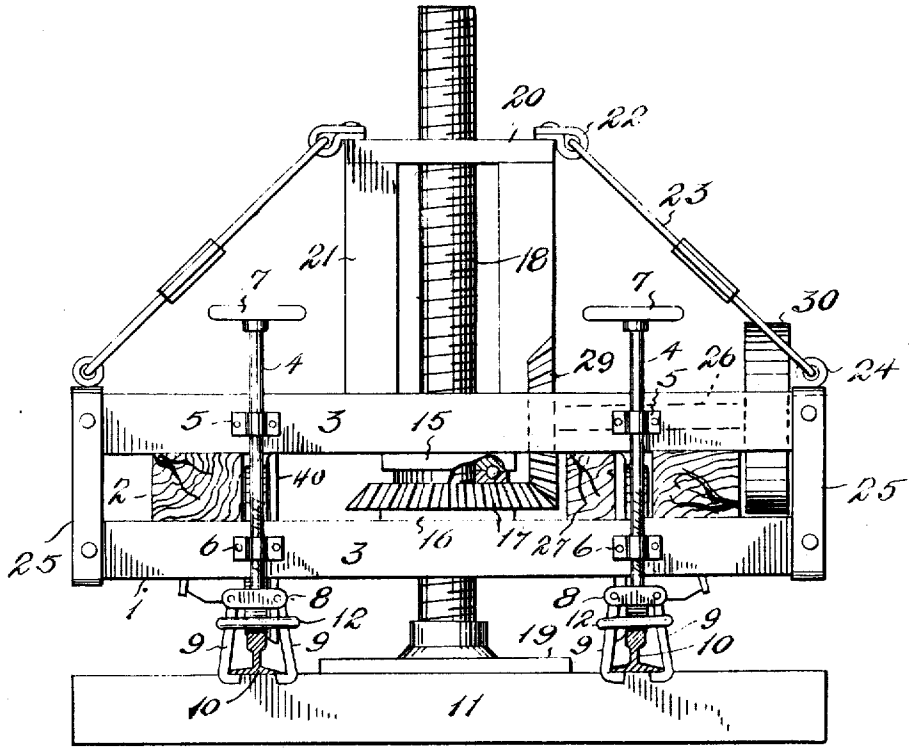

Fig. 1.

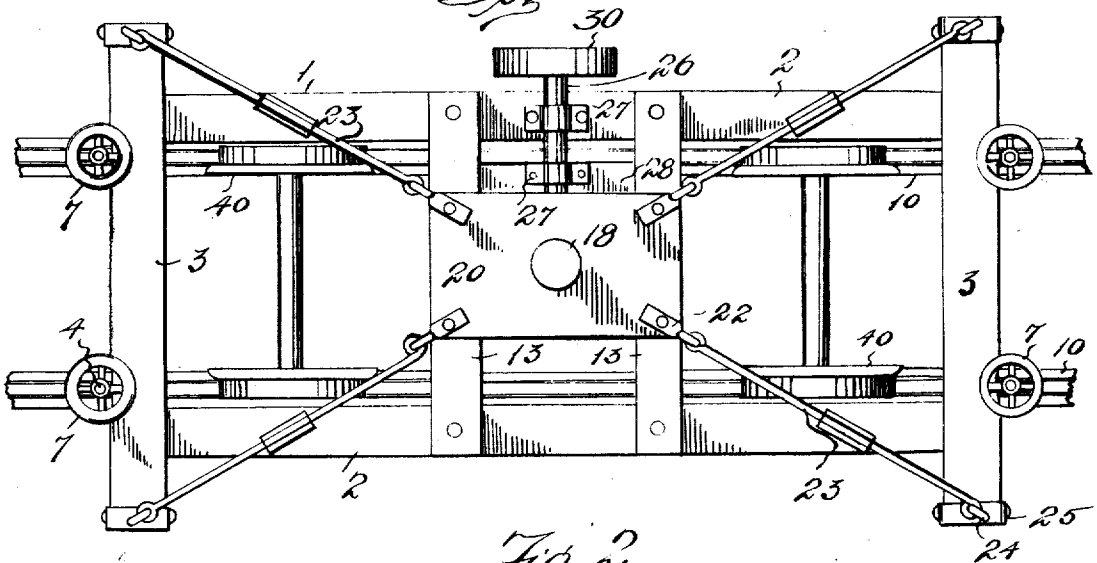

Fig. 2.

WITNESSES:

INVENTOR

Lemuel Tanner

BY John McGillman

ATTORNEY

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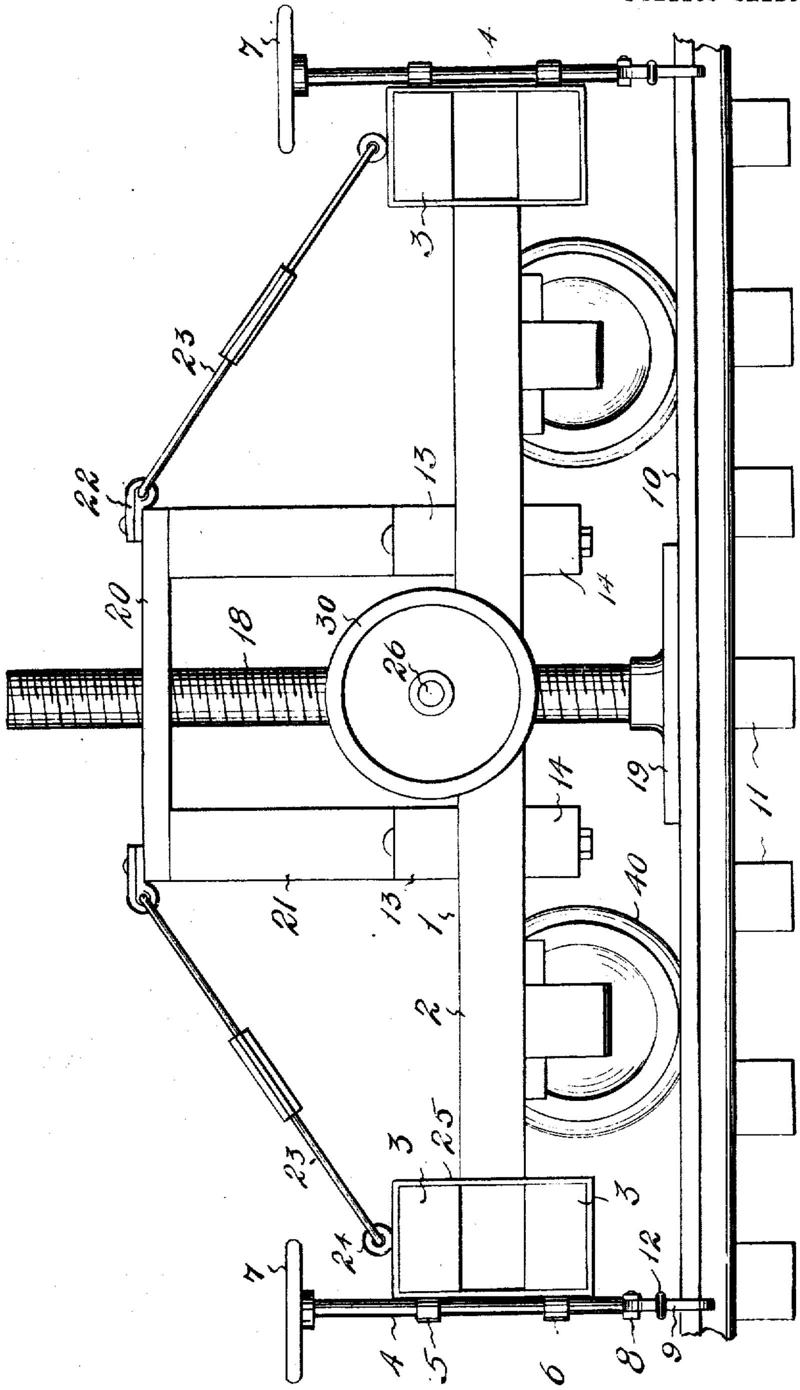

Fig. 3.

WITNESSES:

Flynn Davis

Jack A. Schley

INVENTOR

Lemuel Tanner

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ATTORNEY

UNITED STATES PATENT OFFICE.

LEMUEL TANNER, OF HOUSTON, TEXAS, ASSIGNOR OF ONE-HALF TO ANDREW WESSNES, OF HOUSTON, TEXAS.

TRACK-RAISING MACHINE.

932,829. Specification of Letters Patent. Patented Aug. 31, 1909.

Application filed June 27, 1908. Serial No. 440,657.

To all whom it may concern:

Be it known that I, LEMUEL TANNER, a citizen of the United States, residing at Houston, in the county of Harris and State of Texas, have invented certain new and useful Improvements in Track-Raising Machines, of which the following is a specification.

My invention relates to new and useful improvements in track raising machines.

The object of the invention is to provide a machine designed to travel on the rails arranged to bodily raise the track as well as itself.

Finally the object of the invention is to provide a device of the character described that will be strong, durable and efficient, and simple and comparatively inexpensive to produce, also one in which the several parts will not be liable to get out of working order.

With the above and other objects in view, the invention has relation to certain novel features of construction and operation, an example of which is described in the specification and illustrated in the accompanying drawings, wherein:

Figure 1 is an end elevation of the machine showing it in position on the track, Fig. 2 is a plan view of the same, and Fig. 3 is a side elevation.

In the drawings the numeral 1, designates a frame comprising sills 2 supported at each end between cross beams 3, and mounted on wheels 40.

At each end of the frame vertical staffs 4 are supported in bearing boxes 5 and 6. A portion of each staff is screw threaded through the lower bearing box 6 and provided with a hand wheel 7 at its upper end by which it may be adjusted. On its lower end each staff carries a cross-head 8 having pivoted hooks 9 adapted to the base flange of the rail 10 mounted on the ties 11. A ring 12 is engaged about the hooks which diverge downward to hold the hooks in engagement with the rail. In this way a grapple is formed and upon raising the frame the rails and ties or in other words the track, are bodily raised.

For raising the frame cross bars 13 and 14 are secured to the upper and under sides of the sills 2 at the center of the frame. Bearing plates 15 and 16 of metal are secured to the under sides and upper sides of the bars 13 and 14 respectively. Between these plates a miter gear 17 is disposed, having a ball bearing engagement with the under side of the plate 15.

A vertical screw 18 passes loosely through the plates but has threaded engagement with the gear through which it also passes. At its lower end, the screw fixedly carries a foot 19 adapted to rest on one of the ties or other support. For holding the screw in position and bracing the frame, a cap plate 20 loosely receives it at its upper end. This cap plate is supported on four posts 21 resting on the cross bars 13. Ears 22 secured to the four corners of the cap plate have connection with turn buckle brace rods 23 extending to eyes 24 at the four corners of the frame. These eyes are mounted in metallic frames 25 secured to the corners of the frame 1. In this way the frame and the screw are braced and the strain distributed.

It is to be understood that the screw does not revolve. In order to raise the frame and lift the track, a horizontal shaft 26 is mounted between the bars 13 in bearings 27 mounted on one of the sills 2 and a support 28 extending between the bars 13 and 14. This shaft has keyed on one end a miter gear 29 engaging the gear 17 while a band wheel 30 is secured on the other end.

It is evident that by imparting motion to the band wheel the gears will be revolved and the gear 17 screwed up or down on the screw 18 according to the direction of the motion. In this way the frame 1 is raised or lowered. It is to be noted that in lieu of the band wheel a suitable hand operating device may be substituted.

When the foot 19 is rested on the tie, the spikes are first removed permitting the tie to remain on the road bed. If desired the foot may be rested on suitable supports.

In using the machine it may be run on to the track and the grapples adjusted to rails. Upon revolving the gears the frame will be raised and the rails and ties also raised above the bed permitting repairs and reballasting.

What I claim, is:

1. In a track raising machine, a portable frame comprising suitable side and end members, upright members mounted upon the frame, brace rods attached to said uprights and to said frame securing said grapples to the rails of a track, means for vertically adjusting said grapples, bearing

plates mounted upon said frame, a miter gear disposed between said plates and having a longitudinal play therebetween, a screw passing loosely through said plates and having a screw connection with said gear, a base support for said screw and means for rotating said gear.

2. In a track raising machine, a portable frame, rail grapples carried on each end of said frame, means for vertically adjusting the said grapples, means for securing the grapples to the said rails, upright members mounted upon the frame, adjustable brace rods attached to said uprights and to said frame for strengthening the same, bearing plates mounted upon said frame, a miter gear disposed between said plates, a screw passing loosely through said plates and having a screw connection with the said gear, a base support for said screw and means for rotating said gears.

3. In a track raising machine, a portable frame comprising suitable side and end members, upright members mounted upon the frame, means having connection with said uprights and said frame for strengthening the machine, grappling means carried by said frame, means for securing said grappling means to the rails of the track, means for vertically adjusting said grappling means, bearing plates mounted upon said frame, a gear disposed between said plates and having longitudinal play therebetween, means for rotating said gear, a screw passing loosely through said plates and having a screw connection with said gear, and a base support for said screw.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

LEMUEL TANNER.

Witnesses:
WM. A. CATHEY,
A. WESSNES.

Correction in Letters Patent No. 932,829.

It is hereby certified that in Letters Patent No. 932,829, granted August 31, 1909, upon the application of Lemuel Tanner, of Houston, Tex., for an improvement in "Track-Raising Machines," an error appears in the printed specification requiring correction, as follows: On page 1, line 108, after the word "frame," the words *for strengthening the frame, grapples carried by the said frame, means for* should be inserted: and that the said Letters Patent should be read with this correction therein that the same may conform to the record of the case in the Patent Office.

Signed and sealed this 23d day of November, A. D., 1909.

[SEAL.]

E. B. MOORE,
Commissioner of Patents.

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2. In a track raising machine, a portable frame, rail grapples carried on each end of said frame, means for vertically adjusting the said grapples, means for securing the grapples to the said rails, upright members mounted upon the frame, adjustable brace rods attached to said uprights and to said frame for strengthening the same, bearing plates mounted upon said frame, a miter gear disposed between said plates, a screw passing loosely through said plates and having a screw connection with the said gear, a base support for said screw and means for rotating said gears.

3. In a track raising machine, a portable frame comprising suitable side and end members, upright members mounted upon the frame, means having connection with said uprights and said frame for strengthening the machine, grappling means carried by said frame, means for securing said grappling means to the rails of the track, means for vertically adjusting said grappling means, bearing plates mounted upon said frame, a gear disposed between said plates and having longitudinal play therebetween, means for rotating said gear, a screw passing loosely through said plates and having a screw connection with said gear, and a base support for said screw.

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