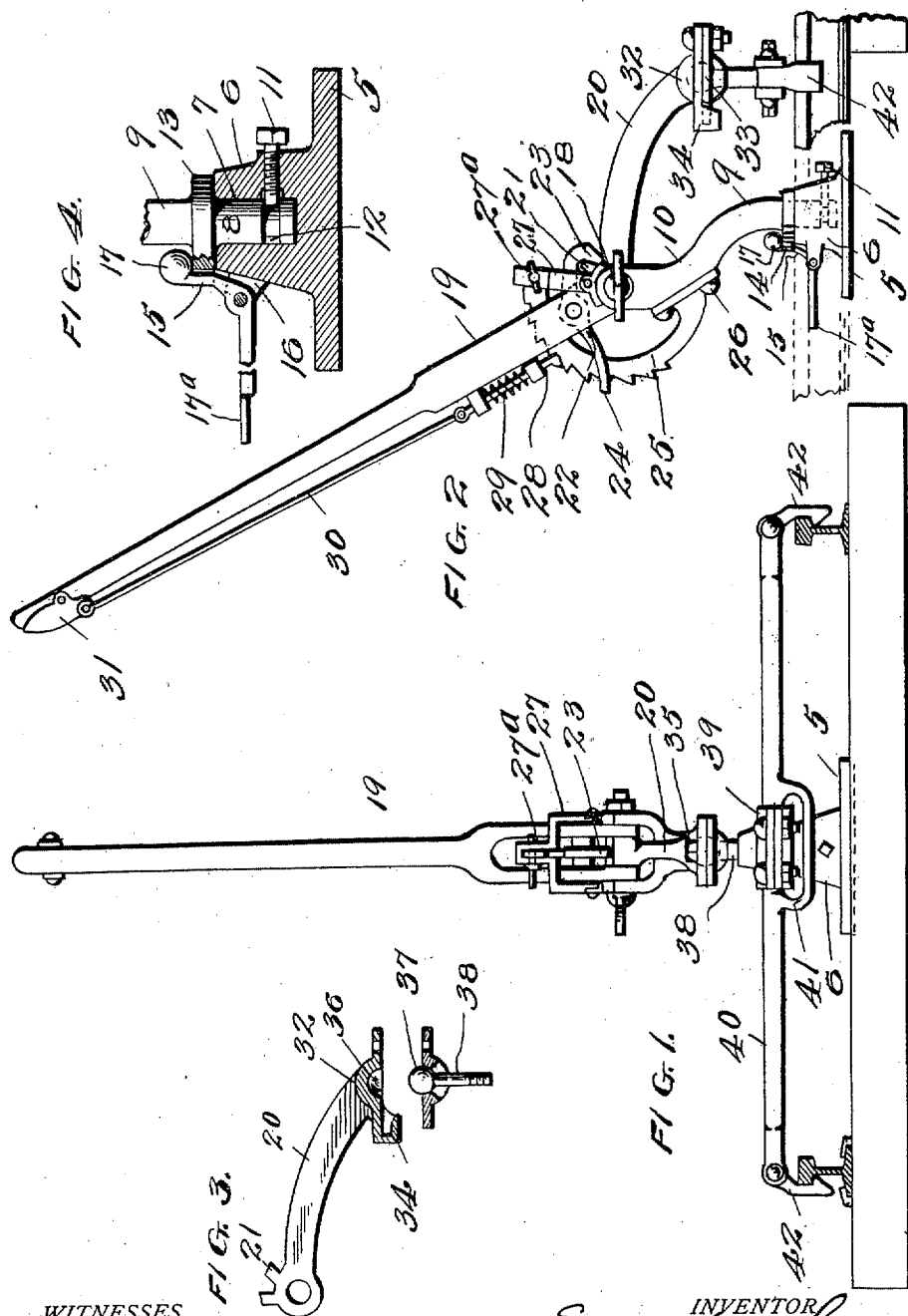


E. WARTHEN.
 TRACK LIFTER AND LINER.
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982,401.

Patented Jan. 24, 1911.



WITNESSES

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TRACK LIFTER AND LINER.

982,401.

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To all whom it may concern:

Be it known that I, ERNEST WARTHEN, a citizen of the United States, residing at Hebron, State of Nebraska, have invented certain new and useful Improvements in Track Lifters and Liners, of which the following is a specification.

The present invention relates to means for raising and laterally moving railway tracks when the same are in assembled condition in order to properly aline and straighten the same.

The primary object is to provide an exceedingly simple structure that can be readily transported to the place of use and easily applied to the track.

The preferred embodiment of the invention is illustrated in the accompanying drawings, wherein:—

Figure 1 is a rear elevation of the apparatus. Fig. 2 is a side elevation of the same. Fig. 3 is a detail view of the lower lever section, showing the ball and socket connection between the cross bar and said section. Fig. 4 is a vertical sectional view through the base.

Similar reference numerals designate corresponding parts in all the figures of the drawings.

In the embodiment disclosed, a base is employed, comprising a plate 5 having an upstanding boss 6 that is provided with a vertical socket 7. Rotatably mounted in the socket 7 is the lower end 8 of a standard 9, the upper end of said standard being offset, as shown at 10 and bifurcated. The standard is held in the base by means of a set screw 11 threaded through the boss 6 and engaging in an annular groove 12 formed in the lower end 8, said groove permitting the free rotation of the standard. The said standard, just above the boss, is provided with an annular flange 13, which is formed with teeth 14, and a dog 15, pivoted as shown at 16 to the boss, is arranged to engage the different teeth, for the purpose of holding the standard in different positions. This dog is held in its operative position by a weight 17, and is operated by pressing down upon the pedal end 17^a thereof.

A detachable pivot bolt 18 extends through the bifurcated upper end 10 of the standard 9, and fulcrumed thereon, is a lever, the same comprising an upper handle section 19 and a lower arm section 20, each

being journaled on the pivot bolt, so that they can relatively swing. The lever can be detached by removing the thumb bolt 18. The lower section 20 has a tooth or shoulder 21, and the handle section has a dog 22 pivoted between its ends thereon. One end of the dog is provided with a tooth 23 that engages behind the shoulder or tooth 21, the other end 24 constituting a treadle. It will therefore be evident that when the two sections of the lever are connected by the said dog 22, they will move together, but if disconnected, one can move with respect to the other. A rack 25 is fixed at its lower end, as shown at 26 to the standard 9, while its upper end is detachably connected by a bracket 27 and bolt 27^a to the upper bifurcated end 10 of said standard. The bracket 27 is pivoted to the standard, and therefore by removing the bolt 27^a, the bracket will swing out of the way, so that upon removal of the bolt 18, the lever can be detached and the instrument segregated into three parts that can be compactly arranged for transportation. A holding dog 28, slidably mounted on the handle portion of the lever, engages the rack, and is normally held in such engagement by a spring 29. This dog has a link connection 30 with an actuating handle 31 pivoted on the upper end of the lever section 19.

The free end of the lever arm section 20 is provided with a socket element formed of two sections 32 and 33 that are secured at one end by one of the sections engaging in a recess 34 in the other section, and at the other end by means of a bolt 35. Located in the socket 36, formed in said sections, is a ball 37 having a depending stem 38 that is threaded into a boxing 39, said stem being capable of swinging movement in every direction. This boxing surrounds the central portion of a cross bar 40, which portion is braced by a yoke 41 that bridges the boxing. Pivoted to the ends of the cross bar 40 are track engaging hooks 42, so shaped that they will slide downwardly over the rails and engage beneath the tread flanges thereof.

In using this structure, the base 5 is first placed centrally between the rails, the lever is raised, so that the cross bar 40 is lowered and the hooks 42 will engage with said rail. The latch 22 having been engaged with the section 20 of the lever, it will be evident that if the upper handle section 19 of the

said lever is depressed, the track will be elevated and can be held in its elevated position by the dog 28 engaging the rack 25. The lever can then be swung laterally with the standard 9 as a pivot, thereby moving the track in one direction or the other, as desired, and when said track has been properly positioned, the operator has only to press upon the treadle 24 of the dog 22, whereupon the section 20 of the lever will be unlatched, and the track will gravitate to its new position.

From the foregoing, it is thought that the construction, operation and many advantages of the herein described invention will be apparent to those skilled in the art, without further description, and it will be understood that various changes in the size, shape, proportion and minor details of construction, may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is:—

1. In a track lifter and mover, the combination with a rotatable standard provided with teeth, means constructed and arranged to engage the teeth to hold the standard against rotation, and track-engaging and elevating means mounted on the standard.

2. In a track lifter and mover, the combination with a standard, of a lever fulcrumed on the standard, a cross bar rotatably mounted on the lever, and track engaging means secured to the cross bar.

3. In a track lifter and mover, the combination with a base, of a standard mounted on the base, a manually operated lever fulcrumed on the standard, a cross bar connected to the free end of the lever, and track-engaging devices carried by the ends of the cross bar.

4. In a track lifter and mover, the combination with a base having a socket, of a standard rotatably mounted in the socket and having an offset upper end, said standard being provided with teeth, a dog on the base that engages the teeth to hold the standard against rotation, a lever fulcrumed on the upper end of the standard, and track-engaging devices suspended from the lever.

5. In a track lifter and mover, the combination with a support, of a lever mounted thereon and comprising relatively movable sections, means for securing the sections together against relative movement, and track-engaging and elevating means mounted on the lever.

6. In a track lifter and mover, the combination with a supporting standard, of a lever comprising relatively swinging sections pivoted on the standard, one of the sections having a shoulder, a dog pivoted on the other section and engaging the shoulder for holding the two sections against relative movement and insuring their simultaneous operation, means for holding the lever as a whole in different positions, and track-engaging devices suspended from one section of the lever.

7. In a track lifter and mover, the combination with a rotatable standard, of a lever fulcrumed on the standard, a cross bar rotatably mounted on the lever, and track engaging devices suspended from the cross bar.

8. In a track lifter and mover, the combination with a base having a socket, of a standard rotatably mounted in the base and having an offset upper end, a dog mounted on the base and engaging the standard for holding the same against rotation, a lever fulcrumed upon the upper end of the standard, and comprising pivotally connected sections, a dog detachably connecting the sections for holding them against relative movement, a rack mounted on the standard, a dog mounted on the lever and engaging the rack, a cross bar having a ball and socket connection with the lever, and track-engaging hooks pivotally mounted on the ends of the cross bar.

9. In a track lifter and mover, the combination with a rotatable support, of a lever fulcrumed on and rotatable with the support, a cross bar having rotatable and universal connection with the lever and track engaging means secured to the cross bar.

In testimony whereof I affix my signature in presence of two witnesses.

ERNEST WARTHEN.

Witnesses:

W. L. WHITNEY,
L. E. WARTHEN.