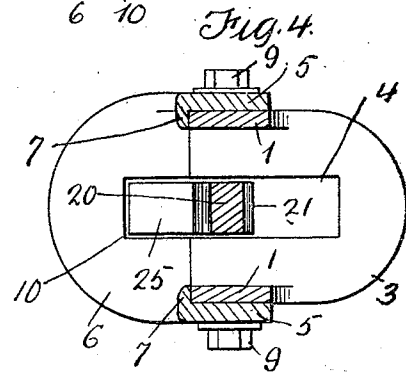
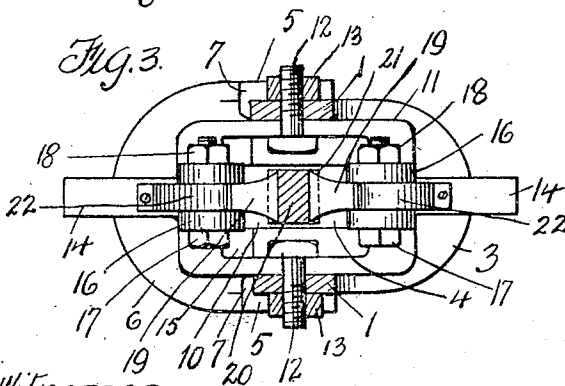
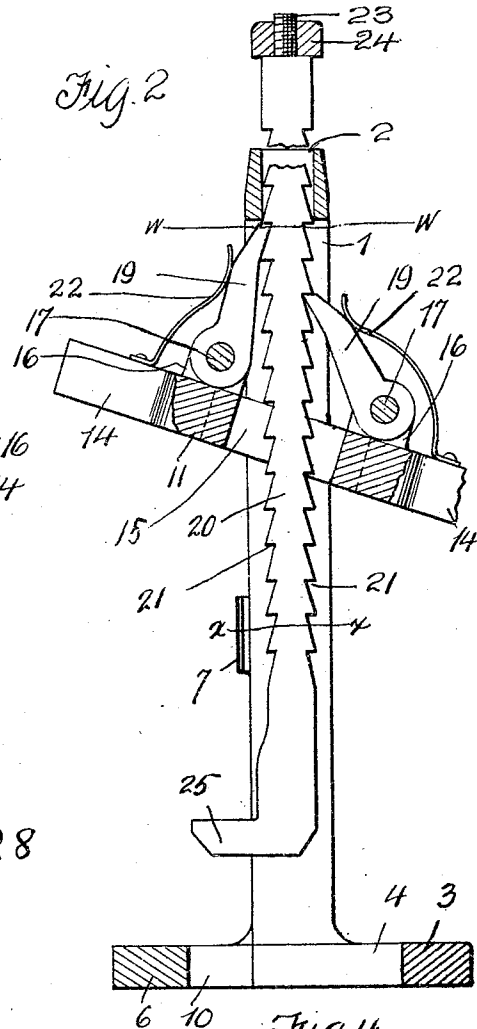
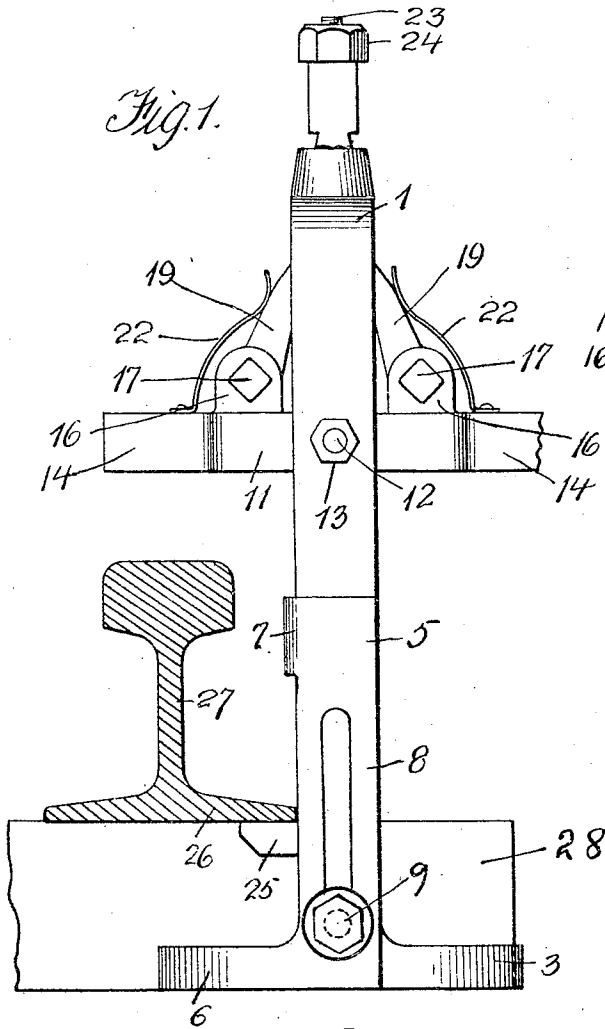


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RAIL JACK.
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Patented May 17, 1910.



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UNITED STATES PATENT OFFICE.

GEORGE K. REILEY, OF SCOTTTDALE, PENNSYLVANIA.

RAIL-JACK.

958,539.

Specification of Letters Patent.

Patented May 17, 1910.

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To all whom it may concern:

Be it known that I, GEORGE K. REILEY, a citizen of the United States of America, residing at Scottdale, in the county of Westmoreland and State of Pennsylvania, have invented certain new and useful Improvements in Rail-Jacks, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to rail jacks, and the object of my invention is to provide a novel device for easily and quickly raising a rail, whereby the foundation of ties adapted to support the rail can be repaired or tamped, or new ties placed in position beneath the rails.

My invention aims to provide an adjustable jack that can be placed beneath ties and regulated to grip the base flange of a rail, to either raise the rail relative to the ties, or said rail and ties relative to the roadbed or foundation upon which the jack rests. To this end, I provide an adjustable housing with an oscillating yoke having pawls adapted to alternately raise a bar arranged in the housing, said bar being shaped to grip the base flange of a rail and elevate said rail when the yoke is oscillated.

The detailed construction entering into my invention will be hereinafter considered in connection with the drawing forming a part of this specification, wherein I have illustrated a preferred embodiment of the invention; but reserve the right to vary or change the structural elements thereof without departing from the spirit of the invention.

In the drawing:—Figure 1 is a side elevation of the jack, Fig. 2 is a vertical sectional view of the same, Fig. 3 is a horizontal sectional view of the jack taken on the line W—W of Fig. 2, and Fig. 4 is a similar view taken on the line X—X of Fig. 2.

In the drawing, the reference numeral 1 denotes a metallic housing having the upper end thereof provided with a central vertical opening 2, while the lower end of said housing is provided with a foot or foundation plate 3 extending outwardly at right angles to said housing and having a longitudinal slot 4.

5 denotes the vertical side arms of a foot or foundation plate 6, said arms having the upper ends thereof provided with inwardly projecting flanges 7 to engage the rear edges of the housing 1, while the arms engage the

outer sides of said housing. These arms are provided with elongated openings or slots 8 and are adjustably connected to the housing 1 by screw bolts 9. In the practice of my invention the foundation plates 3 and 6 are adapted to longitudinally align to provide a substantial footing or foundation for the housing 1. The foot or foundation plate 6 is provided with a slot 10 adapted to register with the slot 4 to provide an elongated opening in the foundation of the housing.

11 denotes an oscillating yoke trunnioned in the housing 1 through the medium of bolts 12 and nuts 13. This yoke has the outer ends thereof provided with oppositely projecting extensions 14, which are rectangular in cross section and are adapted to receive a bar or suitable handle (not shown) for oscillating the yoke. The upper face of the yoke at the front and rear sides of the opening 15 thereof is provided with parallel apertured lugs 16 and pivotally mounted between said lugs by bolts 17 and nuts 18 are pawls 19.

20 denotes a ratchet bar having the front and rear sides thereof provided with ratchet teeth 21 adapted to be engaged and supported by the pawls 19. These pawls are retained in engagement with the ratchet bar 20 by flat springs 22 secured upon the extensions 14 and bearing against the outer faces of said pawls. The upper end of the ratchet bar 20 is reduced and threaded, as at 23 to receive a nut 24 adapted to limit the downward movement of the ratchet bar 20 in the housing, said nut being adapted to engage the top of the housing at the sides of the opening 2 through which the ratchet bar 20 extends. The lower end of the ratchet bar is provided with a right angular extension or claw 25 adapted to engage under the base flange 26 of a rail 27, supported upon ties 28 between which the jack is placed for raising said rail.

The ratchet bar 20 constitutes the elevating medium of the jack and is made approximately the same length as the housing. By providing the adjustable foot or foundation plate 6, I am enabled to position the jack beneath a rail to elevate the same irrespective of the depth of the ties 28. Where the ties are of a greater depth than shown in Fig. 1, it is only necessary to lower the foot or foundation plate 6 to properly position the claw end of the ratchet bar to permit of

the yoke being oscillated to raise the rail under which the claw extends.

In the operation of the jack, one of the pawls recedes over the bar 20 while the other
5 pawl raises the bar, and the pawls alternately serve to elevate the bar 20 and the rail carried by the claw end thereof.

It will of course be understood that the housing is made of a sufficient height to
10 allow the yoke to be oscillated without interfering with the rail raised by the elevating medium of the jack.

Having now described my invention what I claim as new, is:—

15 1. A jack for the purpose set forth comprising a housing, a foundation plate connected to the lower end of and disposed at right angles with respect to said housing, an adjustable foundation plate connected to
20 said housing and disposed at right angles with respect thereto and extending in an opposite direction with respect to the direction in which the first-mentioned foundation plate extends, a vertically movable ratchet
25 bar arranged in said housing and having a right angularly disposed lower end extending over the adjustable foundation plate, and means for vertically moving said ratchet bar and for maintaining it in its adjusted
30 position.

2. A jack for the purpose set forth comprising a housing, a foundation plate connected to and disposed at right angles with respect to the lower end of the housing, an
35 adjustable foundation plate disposed at right angles with respect to the lower end of the housing and extending in an opposite direction with respect to the direction in which the first-mentioned foundation plate
40 extends, a pair of vertically-disposed arms projecting from the adjustable foundation

plate and overlapping the sides of the housing, means for adjustably connecting said arms to the housing, a vertically movable
45 ratchet bar mounted in the housing and having a right angularly disposed lower end, and means for vertically moving the bar and for maintaining it in its adjusted position.

3. A jack for the purpose set forth comprising a housing, a foundation plate connected to and disposed at right angles with respect to the lower end of the housing, an
50 adjustable foundation plate disposed at right angles with respect to the lower end of the housing and extending in an opposite direction with respect to the direction in which the first-mentioned foundation plate extends, a pair of vertically-disposed arms
55 projecting from the adjustable foundation plate and overlapping the sides of the housing, means for adjustably connecting said arms to the housing, a vertically movable ratchet bar mounted in the housing and having a right angularly disposed lower end, a
60 yoke extending through the housing, means projecting through the sides of the yoke and engaging with the sides of the housing for pivotally connecting the yoke to the housing, extensions projecting from the
65 yoke, and duplex means carried by the yoke and engaging with said bar for vertically adjusting it when the yoke is oscillated and for maintaining the bar in its adjusted position when the yoke is stationary.
70 75

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

GEORGE K. REILEY.

Witnesses:

MARY M. HEDDEN,
KARL H. BUTLER.