May 3, 1949. E. B. KELLEY ET AL 2,469,042

DOLLY FOR RAILWAY CARS, VEHICLES AND OTHER OBJECTS

Filed Oct. 4, 1945

3 Sheets-Sheet 1

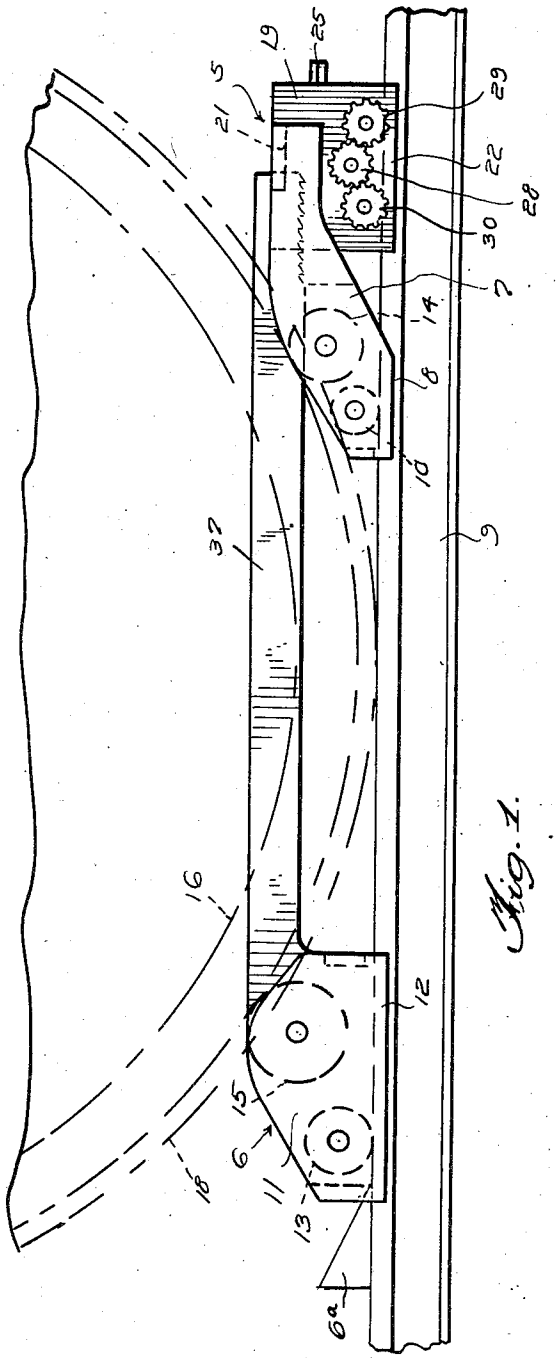


Fig. 1.

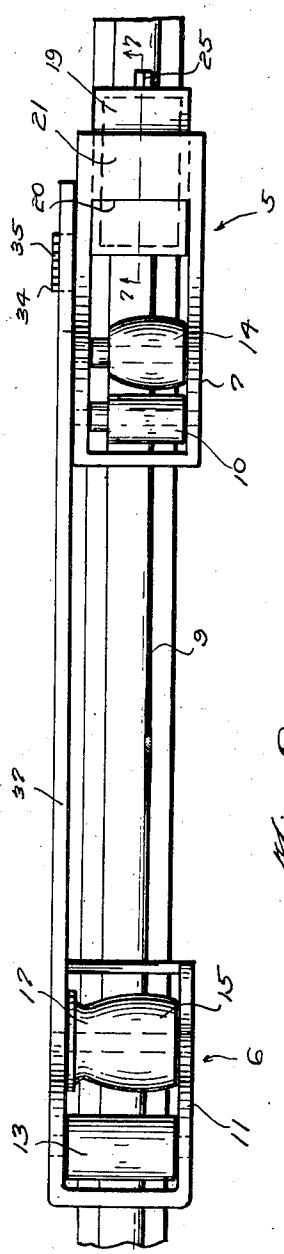


Fig. 2.

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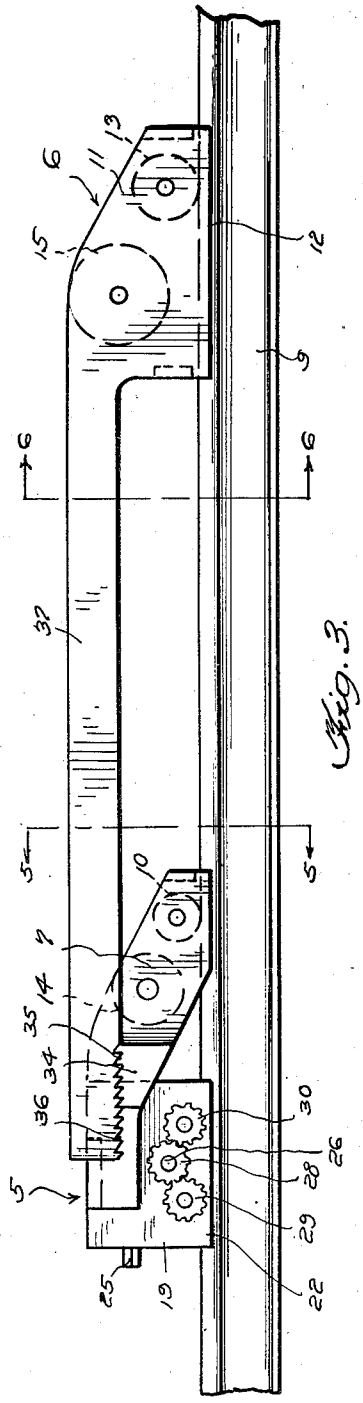


Fig. 3.

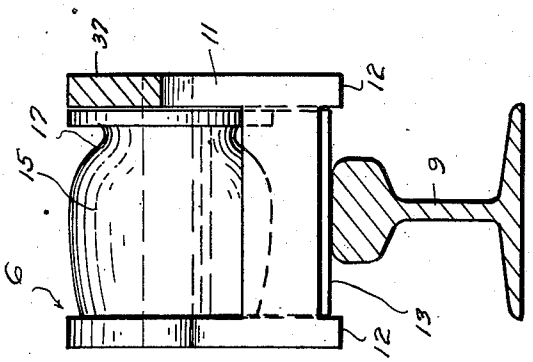


Fig. 6.

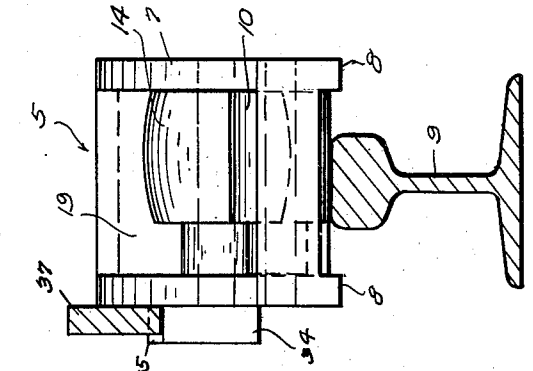


Fig. 5.

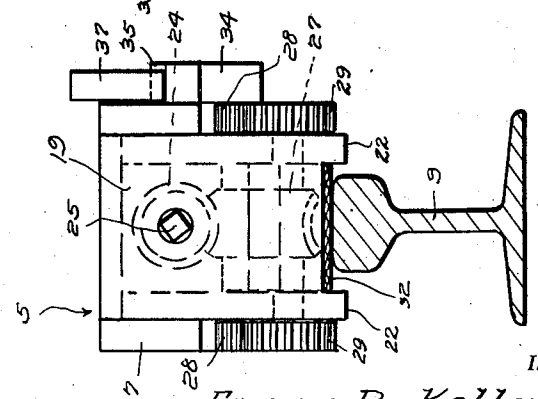


Fig. 4.

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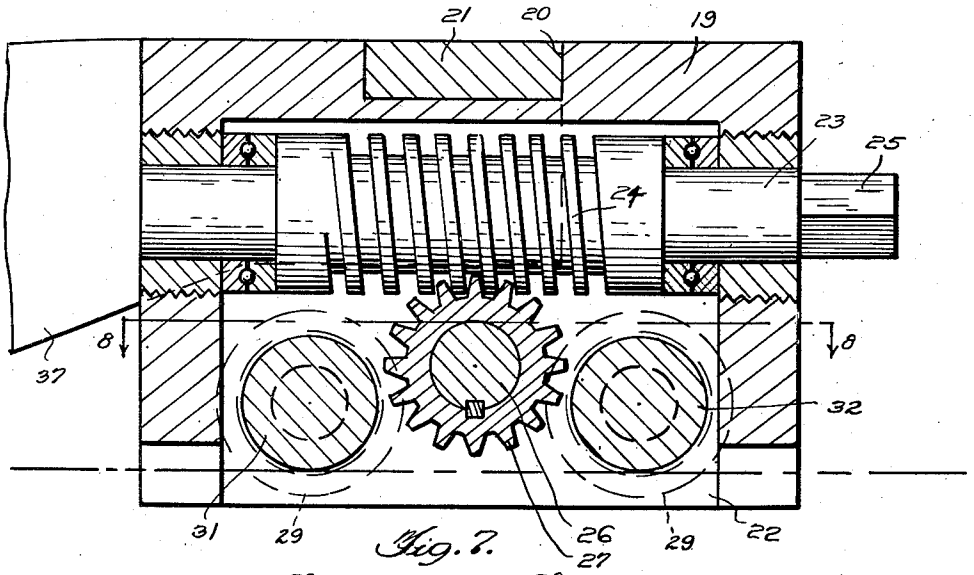


Fig. 7.

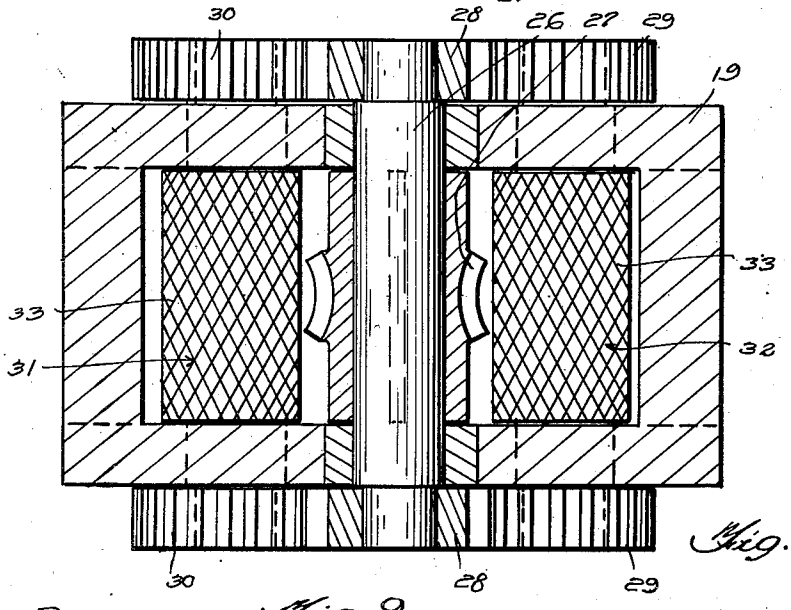
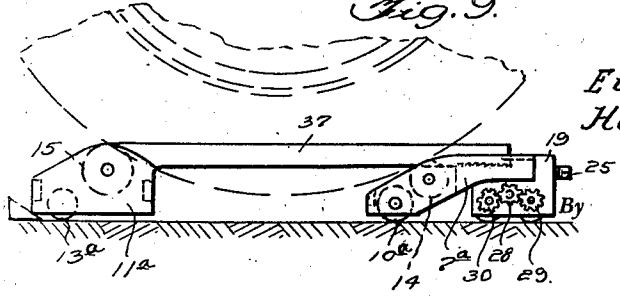


Fig. 8.

Fig. 9.



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UNITED STATES PATENT OFFICE

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DOLLY FOR RAILWAY CARS, VEHICLES, AND OTHER OBJECTS

Eugene B. Kelley, Little Rock, and Harold B. Davis, North Little Rock, Ark.

Application October 4, 1945, Serial No. 620,328

1 Claim. (Cl. 105—141)

1

The present invention relates to new and useful improvements in dollies designed for use in lifting and moving rolling stock of railways and similar objects and equipments supported on rails, and the invention has for its primary object to provide means for lifting the wheels of a railway car, locomotive, or other rolling stock, and moving the wheels in an elevated position along the track to move the car, locomotive, or other rolling stock.

A further object of the invention is to provide a jacking device embodying a traction mechanism for the purpose above set forth mounted for movement on the rails under a wheel and including rollers to support the wheel for movement along the rail after the wheel has been jacked.

A further object of the invention is to provide a device of this character embodying interconnecting jacking means adapted for positioning in front of and behind a wheel of a railway car, locomotive or other rolling stock and which may be easily and quickly connected to and detached from each other to support the wheel in a jacked position for movement along the rail to correspondingly move the car, locomotive or other railway stock.

A still further object is to provide a device of the character and for the purpose indicated in the foregoing which is of simple and practical construction, which is strong and durable, efficient and reliable in operation, relatively inexpensive to manufacture and otherwise well adapted for the purposes for which the same is intended.

Other objects and advantages reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming part hereof, wherein like reference numerals refer to like parts throughout, and in which:

Figure 1 is a side elevational view,

Figure 2 is a top plan view,

Figure 3 is a side elevational view showing the opposite side of the device,

Figure 4 is an end elevational view,

Figures 5 and 6 are transverse sectional views taken, respectively, on the lines 5—5 and 6—6 of Figure 3,

Figure 7 is a fragmentary sectional view taken substantially on the line 7—7 of Figure 2,

Figure 8 is a sectional view taken on a line 8—8 of Figure 7,

Figure 9 is a side elevational view on a reduced scale illustrating a modified construction for use on a flat surface.

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Referring now to the drawings in detail, wherein, for the purpose of illustration, we have disclosed a preferred embodiment of the invention, the numerals 5 and 6 designate the front and rear traction devices generally, the traction device 5 including a frame 7 having downwardly extending, spaced parallel side flanges 8 adapted for positioning at the opposite sides of a rail 9. A roller 10 is journaled in the frame 7 adapted to travel on the rail.

The traction device 6 likewise includes a frame structure 11 having downwardly extending, spaced parallel flanges 12 at its lower edge positioned at opposite sides of the rail 9 and also has a roller 13 journaled therein for riding on the rail.

A second roller 14 is journaled in the frame 7 of the traction device 5 and a second roller 15 is journaled in the frame 11 of the traction device 6, the rollers 14 and 15 being adapted to engage the front and rear edges of a wheel 16 of a railway car or other rolling stock for supporting the wheel thereon. At least one of the wheel supporting rollers is formed at one end with an annular groove 17 to accommodate the flange 18 of the wheel, while the other of said wheel supporting rollers may be of reduced length to prevent interference with the flange, as indicated in Figure 2 of the drawing.

The traction device 5 also includes a gear box 19 having a transverse groove 20 formed in its top within which a cross bar 21 on the rear end of the frame 7 is seated to anchor the frame 7 to the gear box. The gear box 19 also includes downwardly extending side flanges 22 adapted for positioning at opposite sides of the rail 9.

A shaft 23 is journaled longitudinally in the upper portion of the gear box 19 having a worm 24 formed or secured thereto, the rear end of the shaft being squared, as indicated at 25, and to which any conventional form of power or other drive means may be operatively connected.

A shaft 26 is journaled transversely in the gear box 19 having a worm gear 27 keyed or otherwise secured thereto and operatively engaged with the worm 24. To each end of the shaft 26 is secured a gear 28 operatively engaged at opposite sides with gears 29 and 30 secured to the ends of rollers 31 and 32, likewise journaled in the gear box 19, the rollers having corrugated or milled surfaces 33 to provide traction with the rail 9.

To one side of the frame 7 of the traction device 5 is formed or secured a lug 34 formed with

teeth 35 on its upper edge inclined in a direction toward the outer end of the traction device 5 and engaged with oppositely inclined teeth 36 on the lower end of an arm 37 extending longitudinally of the rail 9 and formed with or suitably connected to the frame 12 of the traction device 6.

In the operation of the device, the railway car to which the wheel 16 is attached, or other object to be moved by the device, is chocked and the traction device 5 placed at one side of the wheel and the traction device 6 placed at an opposite side thereof on the rail 9 and with the rollers 14 and 15 in engagement with the wheel, as illustrated in Figure 1 of the drawing. The traction device 6 is designed to be chocked against movement away from the wheel 16 by any suitable means, for instance as shown at 6a in Figure 1.

The shaft 23 is then rotated causing the rotation of the rollers 31 and 32 on the rail, forcing the traction device 5 under the wheel to lift the wheel onto the rollers 14, 15 and the teeth 36 of the arm 37 engaged with the teeth of the lug 34 to ratchet past each other and interlock intermittently so as to permit the device 5 to move toward the device 6 and also so as to prevent spreading movement of the traction devices 5 and 6 so that said devices will support the wheel 16 in its raised position above the rail.

The traction devices may then be moved after the chocks are removed by a continued rotation of the shaft 23 so as to travel on the rollers 10 and 13 along the rail to thus move the object to a desired position on the rails. To release the wheel 16, it is merely necessary to pry the free end of the arm 37 upwardly with a crow bar, or the like, and thereby disengage the teeth 35, 36.

It will be apparent the device may be used for moving vehicles and other objects on flat surfaces other than on rails by providing ground rollers 10a and 13a mounted below the frames 7a and 11a as shown in Figure 9. Otherwise the construction is identical to that heretofore described.

In view of the foregoing description taken in conjunction with the accompanying drawings, it is believed that a clear understanding of the construction, operation and advantages of the

device will be quite apparent to those skilled in this art. A more detailed description is accordingly unnecessary.

It is to be understood, however, that even though we have herein shown and described a preferred embodiment of our invention that the same is susceptible to certain changes fully comprehended by the spirit of the invention as herein described and the scope of the appended claim.

What we claim is:

A dolly for lifting a car wheel off a rail and subsequently moving said wheel to move the car along said rail comprising a pair of roller supported carriages adapted to be mounted on the rail beneath the wheel at opposite sides of said wheel to move along said rail and carry said wheel, means on said carriages for supporting said wheel in lifted position and adapted to be engaged with said wheel to lift and support the same by movement of one carriage toward the other with the other carriage chocked against movement away from the moved carriage, means on said one carriage operative through engagement with the rail to move said one carriage toward the chocked carriage, and means for preventing retrograde movement of the moved carriage away from the chocked carriage including a ratchet toothed member fixed on the moved carriage and a ratchet toothed lever arm on the chocked carriage forced by the load of the lifted wheel on the chocked carriage to ratchet over said member.

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HAROLD B. DAVIS.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
1,275,716	Maurer	Aug. 13, 1918
1,650,031	Nash	Nov. 22, 1927
1,817,220	Young	Aug. 4, 1931
1,850,065	Sawlsville	Mar. 15, 1932
2,332,443	Foringer	Oct. 19, 1943
2,432,156	Hill	Dec. 9, 1947