

No. 690,597.

Patented Jan. 7, 1902.

G. MEADER.

RAILWAY TRACK AND CAR TRUCK.

(Application filed May 2, 1901.)

(No Model.)

2 Sheets—Sheet 1.

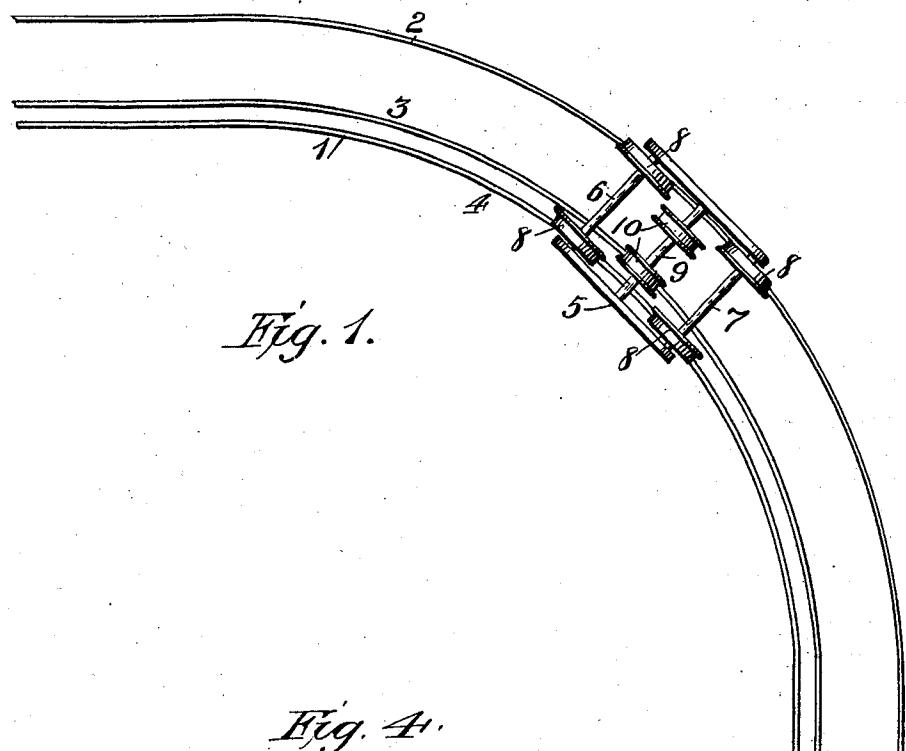
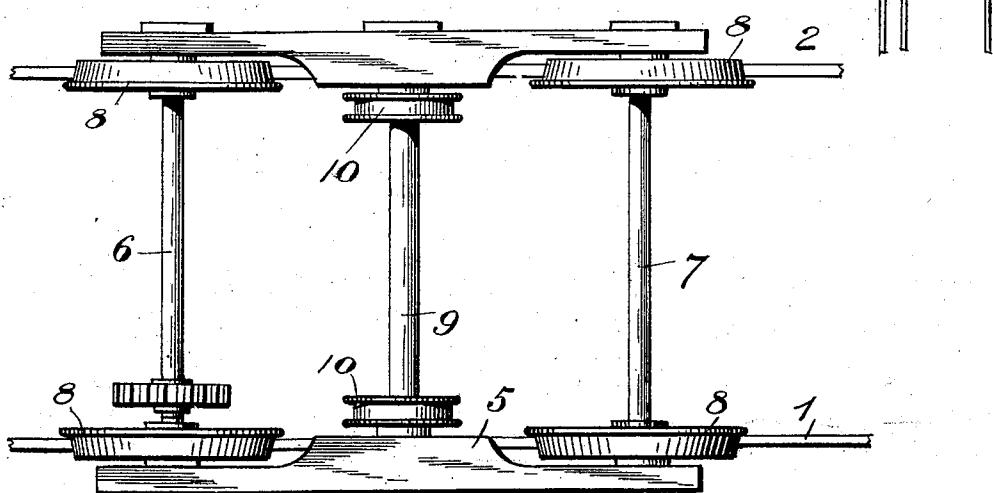


Fig. 1.



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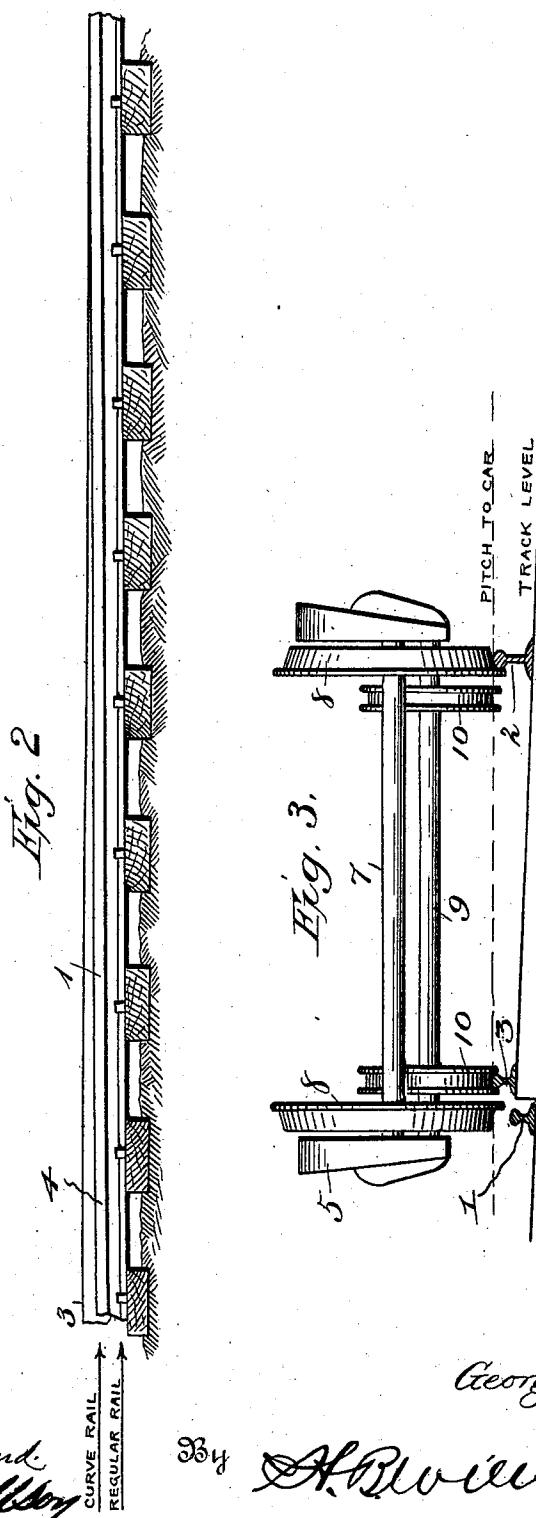
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# UNITED STATES PATENT OFFICE.

GEORGE MEADER, OF FOWLER, INDIANA.

## RAILWAY-TRACK AND CAR-TRUCK.

SPECIFICATION forming part of Letters Patent No. 690,597, dated January 7, 1902.

Application filed May 2, 1901. Serial No. 58,468. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE MEADER, a citizen of the United States, residing at Fowler, in the county of Benton and State of Indiana, have invented certain new and useful Improvements in Railway-Tracks and Car-Trucks; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in railways, and particularly to railway-tracks and car-trucks.

15 It is a well-known fact in railway engineering that where very short curves are necessary a narrow-gage track must be used.

The object of my invention is to facilitate the turning of curves upon street and other 20 railways by the provision of a novel construction and arrangement of parts at the curves of the track, whereby a narrow-gage curve is afforded, friction reduced, and safety in the turning of curves insured; also, to provide a 25 car-truck having a novel construction and arrangement of auxiliary wheels to coöperate with the improved track.

With these and other minor objects in view, which will appear as the nature of the invention 30 is better understood, the invention consists of certain novel features of construction, combination, and arrangement of parts, as will be hereinafter more fully described, and particularly pointed out in the appended 35 claim.

In the accompanying drawings, Figure 1 is a top plan view of a railway-track, partly 40 straight and partly curved, showing the application of my invention to the curve. Fig. 2 is a side elevation of the same. Fig. 3 is a 45 cross-section through the track and car-truck, showing the position of the wheels in rounding a curve; and Fig. 4 is a top plan view of a car-truck embodying my invention.

45 Referring now more particularly to the drawings, the numerals 1 and 2 represent the two rails of an ordinary railroad-track, which for convenience of description will be herein termed the "inner" and "outer" rails. Ex- 50 tending alongside of and parallel to the inner

rail 1 of the track in the curve on the outside—that is to say, on the side nearer to the outer main rail 2—is an auxiliary rail 3. This rail extends beyond the curve along the inner main rail 1, where the latter is straight 55 and is sloped down at each end in order that the change, hereinafter referred to, of the wheels of the truck from the main rail to the auxiliary rail may be gradual. Between the extremities or termini of the auxiliary rail 3 60 the main inner rail 1 is depressed, as shown at 4, so as to extend a sufficient distance below said rail 3 to prevent interference with the wheels of the truck. The auxiliary rail 3 is, however, on a plane below the outer 65 main rail 2, so as to preserve the proper slant of the track at the curve to effect the perfect balancing of the cars on rounding the curve in the usual manner.

In connection with my improved construction of trackway I employ a car-truck having a novel arrangement of auxiliary wheels to coöperate with the auxiliary track 3, whether arranged upon a right or left hand curve. The truck 5 has mounted therein the ordinary main axles 6 and 7, on which are mounted the wheels 8, which traverse the main track-rails 1 and 2. Between these axles 6 and 7 is placed an auxiliary axle 9, carrying two auxiliary flanged wheels 10, of smaller 80 diameter than the wheels 8. In Fig. 3 the wheels of the truck are shown as arranged on the rails when passing around a left-hand curve, and it will be observed that the main wheels 8 upon the right-hand side of the 85 truck run along the outer main rail 2, while in consequence of the inner main rail 1 being depressed the auxiliary wheel 10 upon the axle 9 at the left-hand side of the truck is caused to run upon the auxiliary track-rail 3. By thus causing the wheel that runs on the outside rail of the curve to continue 90 on said rail and bring a wheel of smaller diameter to run upon the auxiliary rail 3 the gage of the track is narrowed at the curve 95 and cars are thereby enabled to pass safely around curves of smaller radius than ordinary without excessive wear or friction and without liability of the wheels jumping the rails. The outer rail 2, forming the outside 100

of the curve, is arranged above the plane of the rail 3, forming the inside of the curve, to slant the track in the proper manner to insure the proper balancing of the cars when 5 passing around the curve.

In some cases I may dispense with, by wholly removing, the depressed portion 4 of the main track-rail 1 between the ends of the auxiliary track 3, and I may also dispense 10 with the auxiliary axle 9 upon the truck and mount the auxiliary wheels 10 loosely upon the axles 6 and 7 upon the inner sides of the main wheels 8.

From the foregoing description, taken in 15 connection with the accompanying drawings, the construction, mode of operation, and advantages of the invention will be readily understood, and it will be seen that a simple, durable, and effective construction and arrangement of parts for the purpose stated is 20 provided.

Changes in the form, proportion, and minor details of construction may be made within the scope of the invention without departing

from the spirit or sacrificing any of the advantages thereof. 25

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

A railway-track having at its curves the 30 main rails 1 and 2 and the auxiliary rail 3, the rail 1 being depressed below the rail 3, in combination with a truck having the auxiliary axle 9 arranged between the main axles and carrying the flanged wheels 10 to run 35 upon right and left auxiliary rails, whereby, when the truck is rounding a curve, the main wheels on one side of the truck will run upon the coöperating main rail, while the auxiliary wheel on the other side of the truck will run 40 upon the auxiliary rail, as set forth.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

GEORGE MEADER.

Witnesses:

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EDMON G. HALL.