No. 676,670. Patented June 18, 1901.

A. A. WELSH.

SINGLE TRACK RAILROAD.

(Application filed Mar. 1, 1901.)

(No Model.) 2 Sheets—Sheet 1.

Fig. 1.

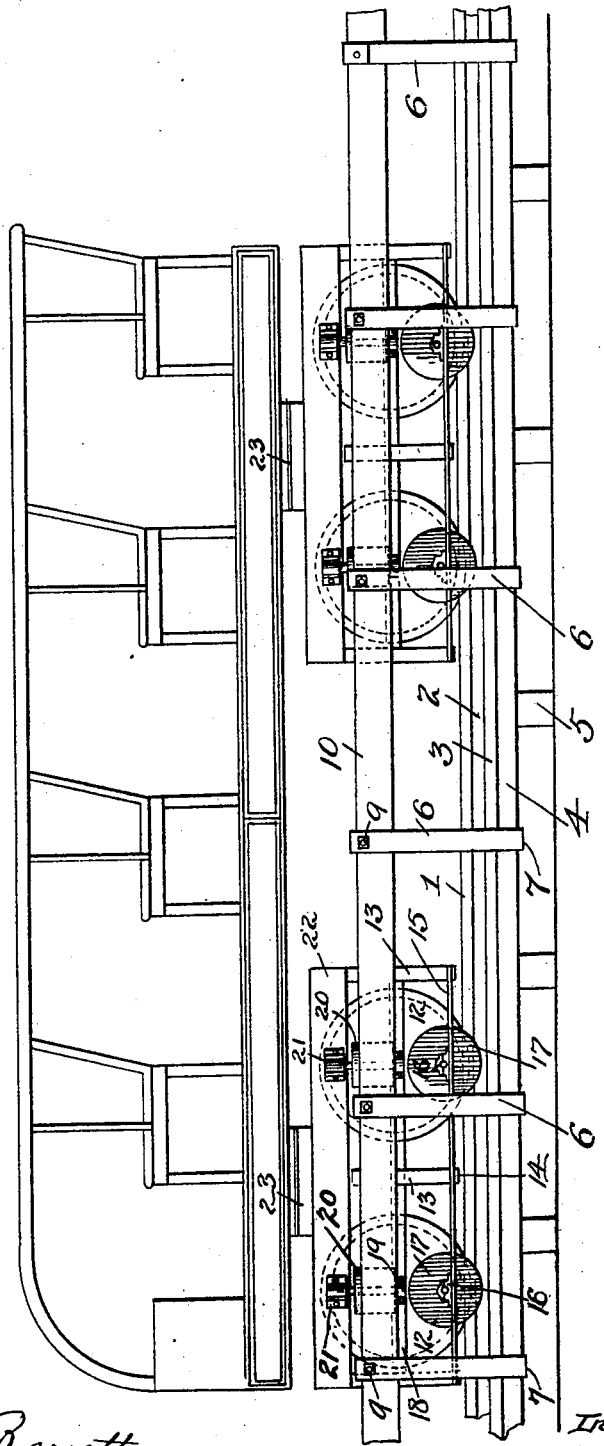

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Fig. 2.

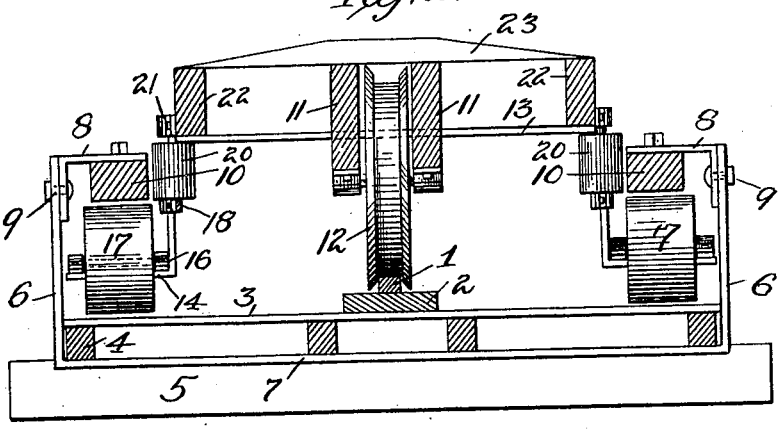


Fig. 3.

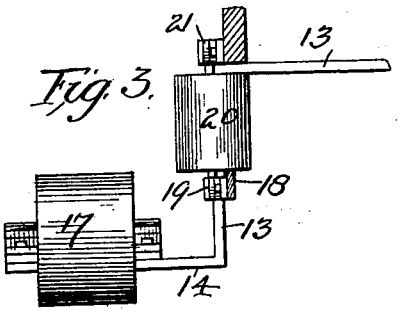
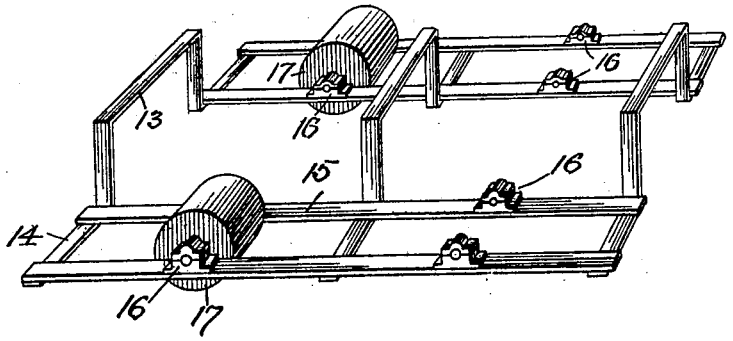


Fig. 4.



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UNITED STATES PATENT OFFICE.

ADAM A. WELSH, OF PARKERSBURG, WEST VIRGINIA, ASSIGNOR OF THREE-FOURTHS TO JAMES C. GRANT, JAMES A. HULL, AND LEVIN SMITH, OF SAME PLACE.

SINGLE-TRACK RAILROAD.

SPECIFICATION forming part of Letters Patent No. 676,670, dated June 18, 1901.

Application filed March 1, 1901. Serial No. 49,459. (No model.)

To all whom it may concern:

Be it known that I, ADAM A. WELSH, a citizen of the United States, residing at Parkersburg, West Virginia, have invented certain new and useful Improvements in Single-Track Railroads, of which the following is a specification.

My invention relates to single-rail railways, and while particularly adapted to scenic or pleasure railways I wish it understood that I do not limit myself to such use.

My object is to provide a simple and effective structure by which the car will be enabled to turn sharp corners without danger of undue tipping or displacement from the track.

In the accompanying drawings, Figure 1 is a side view of the invention. Fig. 2 is a transverse section, and Fig. 3 a sectional detail view. Fig. 4 is a perspective view of part of the track-frame.

In the drawings the single rail upon which the car travels is indicated at 1. This rests upon a longitudinally-extending stringer 2, which is supported upon a floor 3, which in turn is supported upon beams 4, resting upon cross-ties 5. At opposite sides of the structure standards 6 extend upwardly, and these are formed in one piece with a cross-piece 7, which extends under the beam 4 transversely of the structure and at points between the ties 5. The upper ends of these standards 6 support angle-irons 8, which are adjustably secured to the said standards by bolts 9, a series of holes being formed in the upper ends of the standard to allow the angle irons or brackets 8 to be adjusted up or down. These brackets support on their lower inner sides guard-rails 10, so as to leave the lower and the inner faces of said guard-rails exposed, for the purpose hereinafter described.

The truck of the car comprises the beams 11, carrying suitable bearings for supporting a carrying-wheel 12, which is flanged to run upon the single rail 1. From these beams, which are arranged centrally and extend longitudinally of the truck, a cross-bar 13 extends laterally to near the guard-rails 10, at which point the said cross-bar extends downwardly and thence horizontally beneath the guard-rail and at some distance from the same. The lower horizontal extension just mentioned I have marked 14, and as there are a number of these cross-bars 13 with their horizontal extensions carried by each truck the said extensions support the cross-bars 15, which rest thereon at points independent of the extension, which supports bearings 16 for the journals of the rollers 17. These rollers are adapted to bear upon the under surfaces of the guard-rails 10. Rails 18, similar to those just described, are secured to the downwardly-extending portions of the cross-bars 13, and these rails carry bearing-boxes 19 for the lower journals of rollers 20, the upper journals of said rollers bearing in boxes 21, supported by rails 22, carried by the cross-bar 13 and forming part of the truck-frame. The bolster 23 of the truck-frame rests upon the sills 22 and upon the central beams 11. The rollers 20 are adapted to bear upon the inner faces of the guard-rails 10, and these, acting in conjunction with the rollers 17, before described, act to maintain the truck in its normally balanced position. This effect is also secured by the roller 17 bearing upon the floor 3 of the stationary frame when the truck tends to tilt.

Referring to Fig. 2, if the truck tends to tilt toward the right such tendency will be checked by the roller 20 on the right-hand side bearing upon the inner face of the guard-rail 10, by the right-hand roller 17 bearing upon the floor 3, and also by the left-hand roller 17 bearing upon the under face of the left-hand guard-rail. It will be seen by the use of the angular brackets 8, to which the guard-rails are secured by their upper faces, that the inner faces of said guard-rails are left free for contact with the rollers 20.

It will be understood that while I have described the floor 3 as forming part of the structure I do not wish to limit myself to this, and other features of structure may be changed without departing from the spirit of my invention as particularly defined in the claims.

I claim as my invention—

1. In combination, the ties, the stringers supported thereon, the carrying-rail and standards extending up from the supporting structure, the said standards forming upward

extensions of a cross-piece arranged below the sills or beams, substantially as described.

2. In combination, the ties, the sills resting thereon, the carrying-rail, cross-pieces extending beneath the sills and at points between the ties, said cross-pieces having upward extensions forming standards and guard-rails supported by said standards.

3. In combination, the supporting structure, the guard-rail supported thereon, a single carrying-rail, a truck having a wheel adapted to said carrying-rail, said truck having depending supports with lateral extensions at their lower ends and rollers supported by the depending support and said lateral extensions, substantially as described.

4. In combination, the supporting structure, the guard-rails, a truck having depending supports with lateral extensions at their lower ends, rails supported by the said depending supports and their lateral extensions and bearing-boxes carried by said rails, substantially as described.

5. In combination, the supporting structure, a single carrying-rail thereon, the guard-rail at the side of said supporting structure, the truck having a wheel adapted to the said carrying-rail, a cross-bar carried by said truck having depending portions with lateral lower extensions, the sills or rails 22 supported by the said cross-bars, bearing-boxes by the depending and laterally-extended portions and also by the sills 22 and rollers journaled in said bearing-boxes, substantially as described.

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

ADAM A. WELSH.

Witnesses:
JOHN MCCUNE, Jr.,
R. A. CHAPMAN.