Aug. 31, 1926. 1,597,670

T. CARDWELL

RAIL FOR LOCOMOTIVE STALLS

Filed March 2, 1925

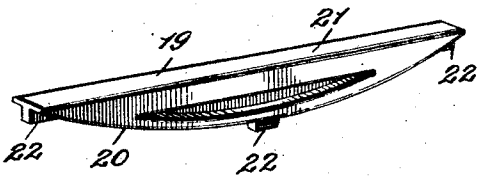


Fig. 1

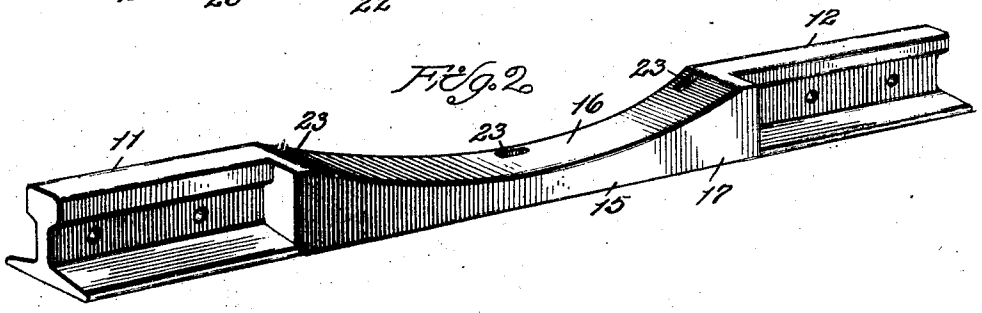


Fig. 2

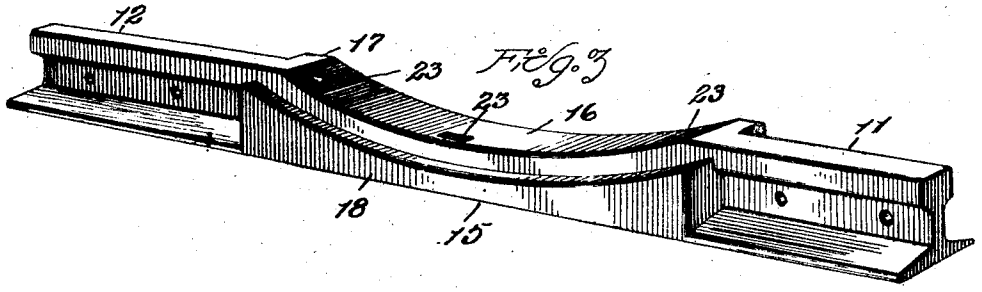


Fig. 3

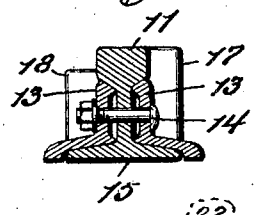


Fig. 4

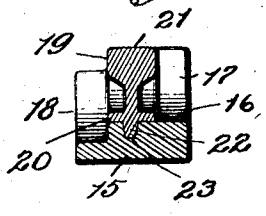


Fig. 5

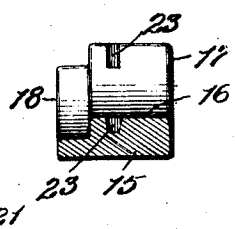


Fig. 6

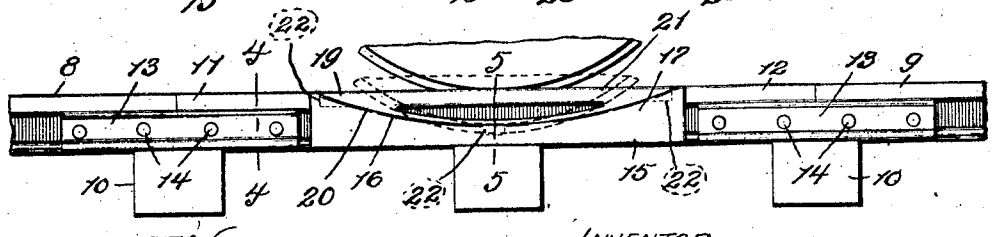


Fig. 7

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UNITED STATES PATENT OFFICE.

THOMAS CARDWELL, OF ST. LOUIS, MISSOURI.

RAIL FOR LOCOMOTIVE STALLS.

Application filed March 2, 1925. Serial No. 12,733.

My invention relates to improvements in rails for locomotive stalls and more particularly to the type of rail, shown and described in an application for patent, filed by me January 19, 1924, Serial Number 685,183, and which consists of elements for placement in line with and between the ends of a pair of running rails, one of which elements provides for the dropping of selected wheels of rolling stock to a plane beneath their normal running plane and the other of which provides for the carrying of the wheels in their normal running plane over the first mentioned element, whereby the care and repair of rolling stock, involving the freeing of a selected part from the supporting rail, is accomplished by a minimum of effort and in a minimum of time.

In the rail of the said application the fixed element, providing the lowering of a selected wheel or part, consisted of a surface, lying to one side of the normal tread, or ball, of the running rails, for engagement by the flanges of the wheels of rolling stock; the means for securing the removable element involved a groove, or channel in the fixed element, and, the means for jointing the fixed element to the ends of the running rails involved elements constructed as integral parts of the fixed element. By reason of the rolling of the flanges of the wheels over the fixed element the upper surface thereof was subject to defacement and undesirable wear. By reason of the groove for the securing of the removable element there was annoyance incident to the lodging of machine parts, tools and dirt in the groove, and, by reason of the integral rail joint elements the production cost was relatively high.

The object of my present invention is to provide a rail for use in connection with the care and repair of rolling stock, which will be subject to a minimum of wear, wherein a tread surface, including a portion occupying a plane below the normal running plane, is arranged to be engaged throughout its length by the tread portions, only, of the wheels.

A further object is to construct a rail of the class recited wherein the means for relatively securing the removable and fixed elements involves a minimum of sectional reduction of the elements.

And a still further object is to construct a rail of the class recited having its ends of the same sectional contour as the running rails to which it is to be secured whereby the conventional rail-joining plates may be employed.

My improvements consist in the novel construction, arrangement and combination of parts as hereinafter fully, clearly and concisely described, definitely pointed out in my claims and illustrated by the accompanying drawing (1 sheet) in which—

Fig. 1 is a perspective view of the removable and replaceable element.

Fig. 2 is a perspective view, showing the outer face of the fixed tread element, or body.

Fig. 3 is a view similar to Fig. 2 showing the inner face.

Fig. 4 is a transverse sectional elevation, taken on the line 4—4 of Fig. 7 showing the joint-plates for connecting the fixed element with a running rail.

Fig. 5 is a transverse sectional elevation, taken on the line 5—5 of Fig. 7, showing the removable and replaceable tread element as mounted upon the fixed tread element.

Fig. 6 is a view similar to Fig. 5 showing only the fixed tread element, and

Fig. 7 is a side elevation of a rail, constructed in accordance with my invention, as installed and connected between a pair of running rails, showing by solid lines the removable and replaceable tread element in place and supporting a wheel in its normal running plane, and, by dotted lines the wheel, as supported by the fixed tread element, as at a time when the removable and replaceable element is removed, and the wheel dropped to a plane lower than the normal running plane.

Referring by numerals to the drawings 8 and 9 designate running rails and 10 designates ties, or sleepers, both of which are of standard, ordinary construction.

The numerals 11 and 12 designate the ends of my improved locomotive stall, or repair, rail, which ends are sectionally shaped similar to the running rails 8 and 9, whereby the rail of my invention may be joined to the running rails as by means of the plates 13 and bolts 14 which are of standard, ordinary construction.

The body 15, comprises essentially a surface 16 whose ends occupy the planes of the recited rail-ends 11 and 12 and which surface at a point between its ends occupies a plane lower than the plane of its ends.

By preference the inside face, or margin of the surface 16 aligns with the inside faces of the balls, or treads of the running rails 8 and 9 and by further preference the said surface is curved, or arcuated throughout its length and forms a downward inflection of the upper, or tread surfaces of the rail-ends 11 and 12.

For reinforcing, or strengthening, the body, more especially at its longitudinal center the rail-body is provided with lateral extensions 17 and 18, the upper surface of the extension 17 forming part of the recited surface 16 and the upper surface of the extension 18, lying at the inside of the rail, disposed in a plane below the plane of wheel flanges passing over the rail.

Obviously the rail-ends 11 and 12 support the wheels of rolling stock in the same manner as the running rails.

The numeral 19 designates a removable and replaceable rail-section, or element, comprising a base 20, adapted to rest upon the surface 16 of the described fixed element, and by preference shaped to conform therewith, as shown; a tread, or ball 21, formed as a straight line, or chord, joining the extremities of the arcuated base 20. For holding the element 19 in place I provide means such as the tenons 22, on the element 19 for extension into cavities, or mortises 23 in the fixed element.

Obviously when the element 19 is in position the wheels of rolling stock will pass over the rail of my invention in the precise manner as they do over the ordinary, standard, running rails, and it is to be understood that when it is desired to "drop out", or lower a selected wheel of rolling stock the element 19 is bodily removed and the selected wheel moved over the downwardly inflected surface of the fixed element, hence the selected wheel will be moved to a plane lower than the wheels of the piece of rolling stock supported upon the running rails.

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

1. A rail of the class described comprising a body portion whose upper face consists of treads arranged for placement in line with and between the ends of a pair of running rails and a surface between, aligned with and downwardly inflected from, said treads.

2. A rail of the class described comprising a body portion whose upper face consists of treads arranged for placement in line with and between the ends of a pair of running rails and a surface between, aligned with and downwardly inflected from, said treads, the body of the rail beneath said treads having a sectional contour providing its connection with said running rails by conventional rail-joint elements.

3. A rail of the class described comprising an element arranged for fixed positioning between the ends of a pair of running rails, which consists of a pair of treads, similar to the treads of said running rails and a surface between, aligned with and downwardly inflected from said treads, a removable element having a tread arranged to align with the treads of said running rails, a base arranged for support upon said downwardly inflected surface and means for holding the removable element against movement relative to the fixed element.

4. A rail of the class described comprising a pair of ends and a downwardly inflected portion between said ends whose wheel flange engaging face aligns with the wheel flange engaging faces of said rail ends.

5. A rail of the kind described having a tread that extends from end to end of the rail and is offset downwardly at the middle thereof, and a section removably secured to said rail and fitting the downwardly offset portion thereof, said section having a tread disposed in the plane of the treads at the ends of said rail.

6. A railroad track comprising continuous lines of rails, portions of the treads of which are offset downwardly, and removable sections fitting the downwardly offset portions of said rails and having treads disposed in the plane of the main tread portions thereof.

THOMAS CARDWELL