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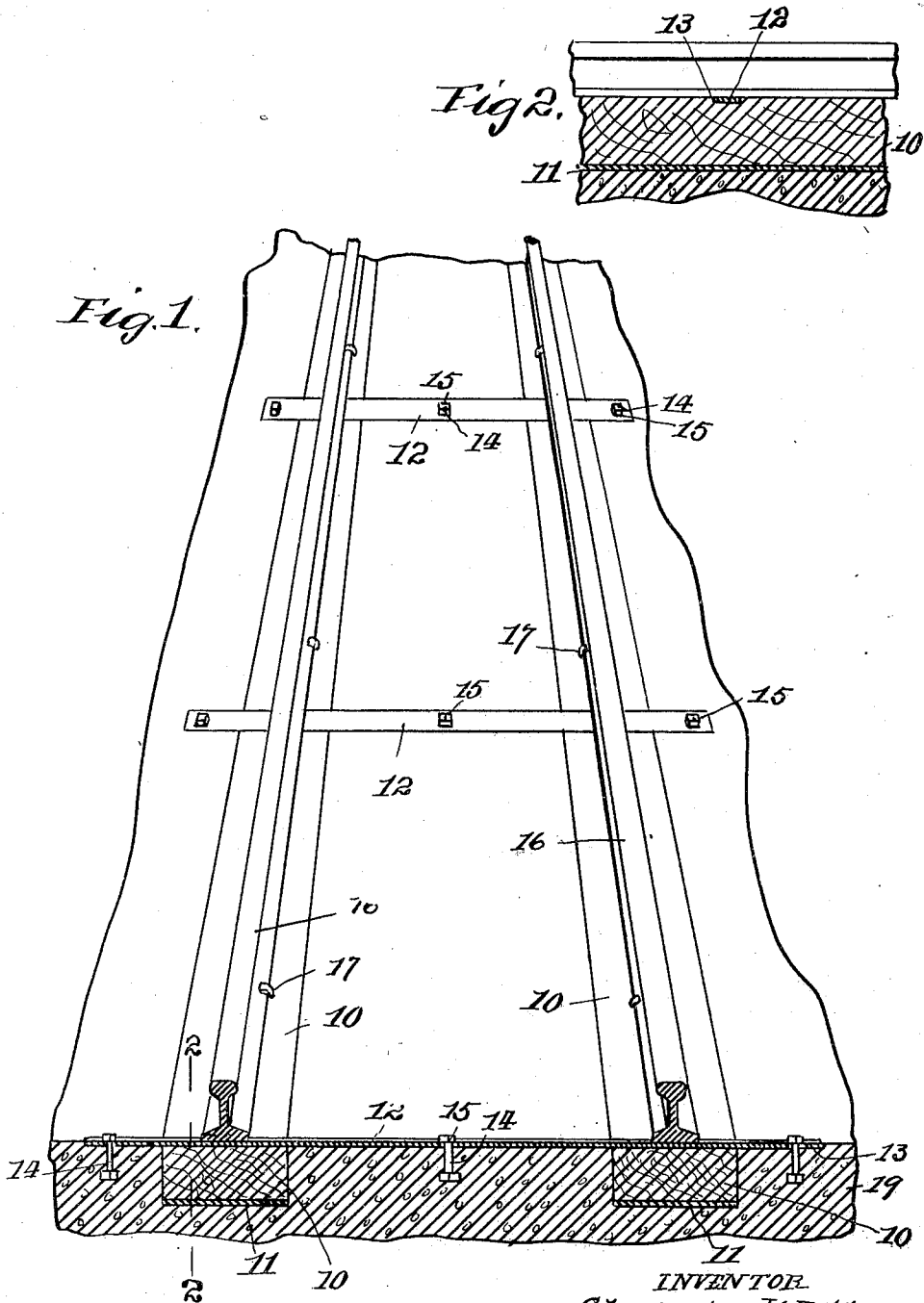
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1,766,367

RAILWAY ROADBED CONSTRUCTION.

Filed July 31, 1929

2 Sheets-Sheet 1



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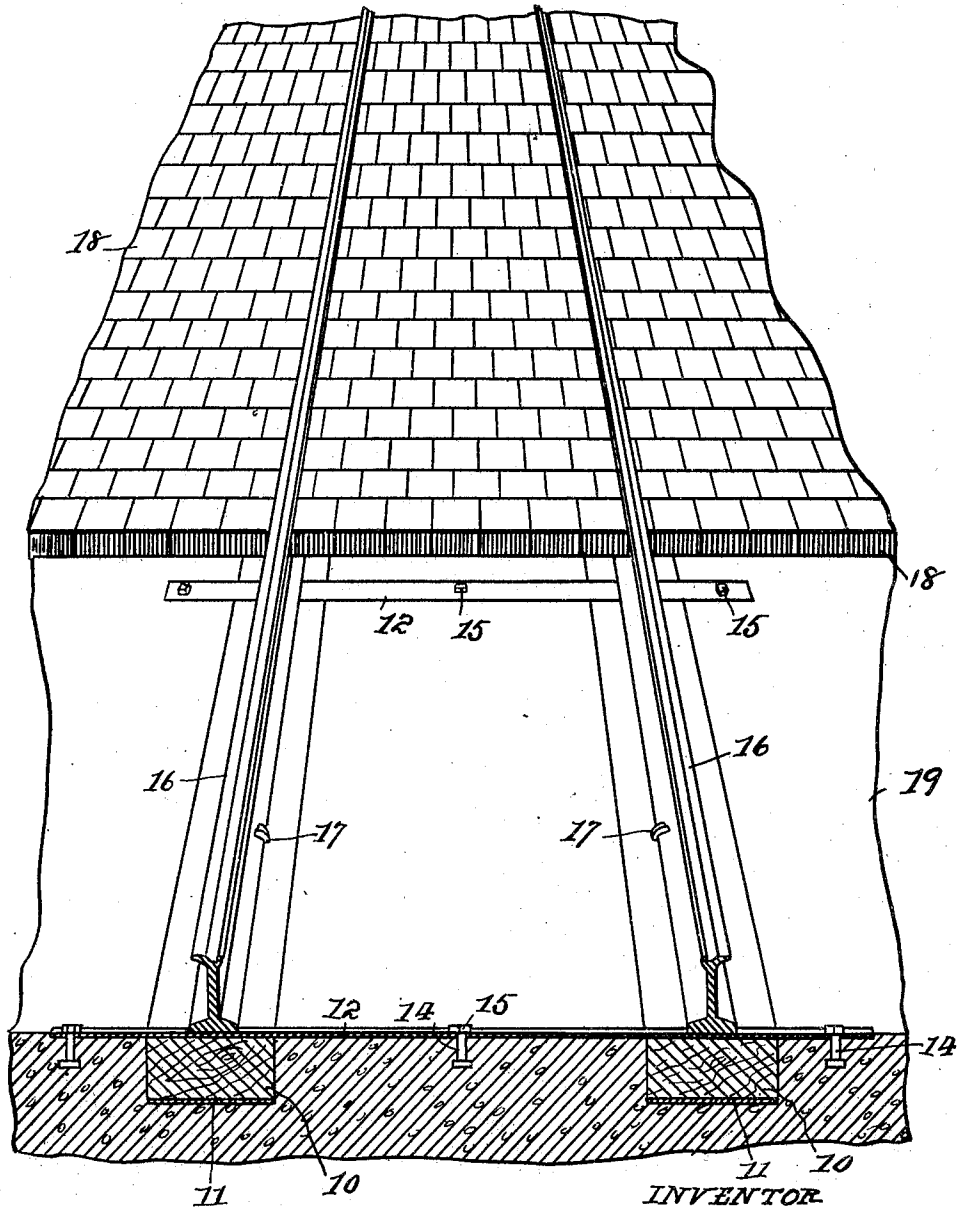
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Fig. 3



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UNITED STATES PATENT OFFICE

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RAILWAY-ROADBED CONSTRUCTION

Application filed July 31, 1929. Serial No. 382,387.

My invention relates to new and useful improvements in a railway roadbed construction, and has for its object to provide continuous supports for the rails of the railway to prevent the give in the rails incident to the passage of heavy trains thereover.

A further object of the invention is to provide means for securing the continuous supports in place upon a concrete bed and a still further object of the invention is to provide for the cushioning of the supports so as to prevent undue hammering incident to the travel of high speed trains and cars.

With these and other ends in view, this invention consists in the details of construction and combination of elements hereinafter set forth and then specifically designated by the claims.

In order that those skilled in the art to which this invention appertains may understand how to make and use the same, I will describe its construction in detail, referring by numerals to the accompanying drawings forming a part of this application, in which:—

Fig. 1, is a perspective view of a portion of a steam railway, the ends of the rails and road bed being in section.

Fig. 2, is a section at the line 2—2 of Fig. 1.

Fig. 3, is a view similar to Fig. 1 showing a street railway and illustrating the manner of providing a surface for the road bed consisting of blocks.

In carrying out my invention as herein embodied, 10 represents the supports for the rails of the railway, these supports being in the form of stringers set in the roadbed lengthwise thereof and seated upon the shock absorbing strips 11.

The stringers are held in place by the metal cross bars 12, which fit into the grooves 13 formed in the stringers 10 so as to bring the upper surfaces of these cross bars flush with the upper surface of the road bed and of the stringers, as clearly shown in Fig. 2. In order that these cross bars may be securely held in place and yet be removable, the bolts 14 are embedded in

the roadbed when said roadbed is being laid and these bolts pass through suitable holes in the cross bars and have threaded on the upper ends thereon the nuts 15 which may be drawn tightly down upon said cross bars, thereby firmly holding the latter in place and in turn holding the stringers in place.

The railway rails 16 are secured to the stringers by the spikes 17 which latter may be as numerous as necessary to properly hold the rails for the particular service said rails are to be subjected to.

In Fig. 1, I have illustrated by invention as adapted for use in steam railways or railways intended for heavy service and in which it is not usually necessary to bring the upper surface of the roadbed to a level of the top of the rails, while in Fig. 3 I have illustrated the adaptation of my invention to street railways or such railways as the requirements necessitate the upper surface of the road bed to be on a level with the top of the rails, and in such cases, the block and paving 18 is laid upon the concrete roadbed 19, thus entirely sealing the stringers and cross bars.

In practice, the foundation of the roadbed or the entire roadbed is laid with the stringers and the shock absorbing strips 11 embedded therein as well as the bolts 14 and thereafter these stringers are firmly secured in place by the cross bars as before described so that the rails when spiked upon said stringers will be positively held in place against the side thrust of the rolling stock in traveling over the rails.

By constructing a railway in accordance with my improvements, the rails are supported throughout their entire lengths and thus do not have a tendency to spring downward between ties in the usual construction of railways, and therefore regardless of the speed of the rolling stock, the tendency to hammer occasioned by the giving of the rails between the ties is entirely avoided; and by seating the stringers upon the shock absorbing strips 11, provision is made for cushioning the rolling stock when traveling at high speeds.

A further advantage of my invention is

that easy access is had to the stringers for removal where repairs are necessary and the fact that the stringers are embedded in a concrete roadbed prevents the spreading or displacement of the stringers and consequently increases the safety element in railway service.

Of course I do not wish to be limited to the exact details of construction as herein shown, as these may be varied within the limits of the appended claims without departing from the spirit of my invention.

Having thus fully described by invention, what I claim is new and useful is:—

1. In a railway, a concrete roadbed, lengthwise stringers set in said bed, cross bars for holding said stringers in position, bolts molded in the roadbed for removably securing the cross bars in place and rails secured to the stringers lengthwise thereof.

2. In a railway, a concrete roadbed, lengthwise stringers set in said bed, cross bars for holding said stringers in position, bolts molded in the roadbed for removably securing the cross bars in place, rails secured to the stringers lengthwise thereof, and shock absorbing strips interposed between the bottom surfaces of the stringers and the roadbed.

3. In a railway, a concrete roadbed, lengthwise stringers set in said bed, cross bars for holding said stringers in position, bolts molded in the roadbed for removably securing the cross bars in place, rails secured to the stringers lengthwise thereof, shock absorbing strips interposed between the bottom surfaces of the stringers and the roadbed, and surfacing blocks superimposed upon the roadbed, the upper surface of said blocks being level with the tops of the rails.

In testimony whereof, I have hereunto affixed my signature.

CHRISTIAN WELLER.

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