No. 795,622. PATENTED JULY 25, 1905.

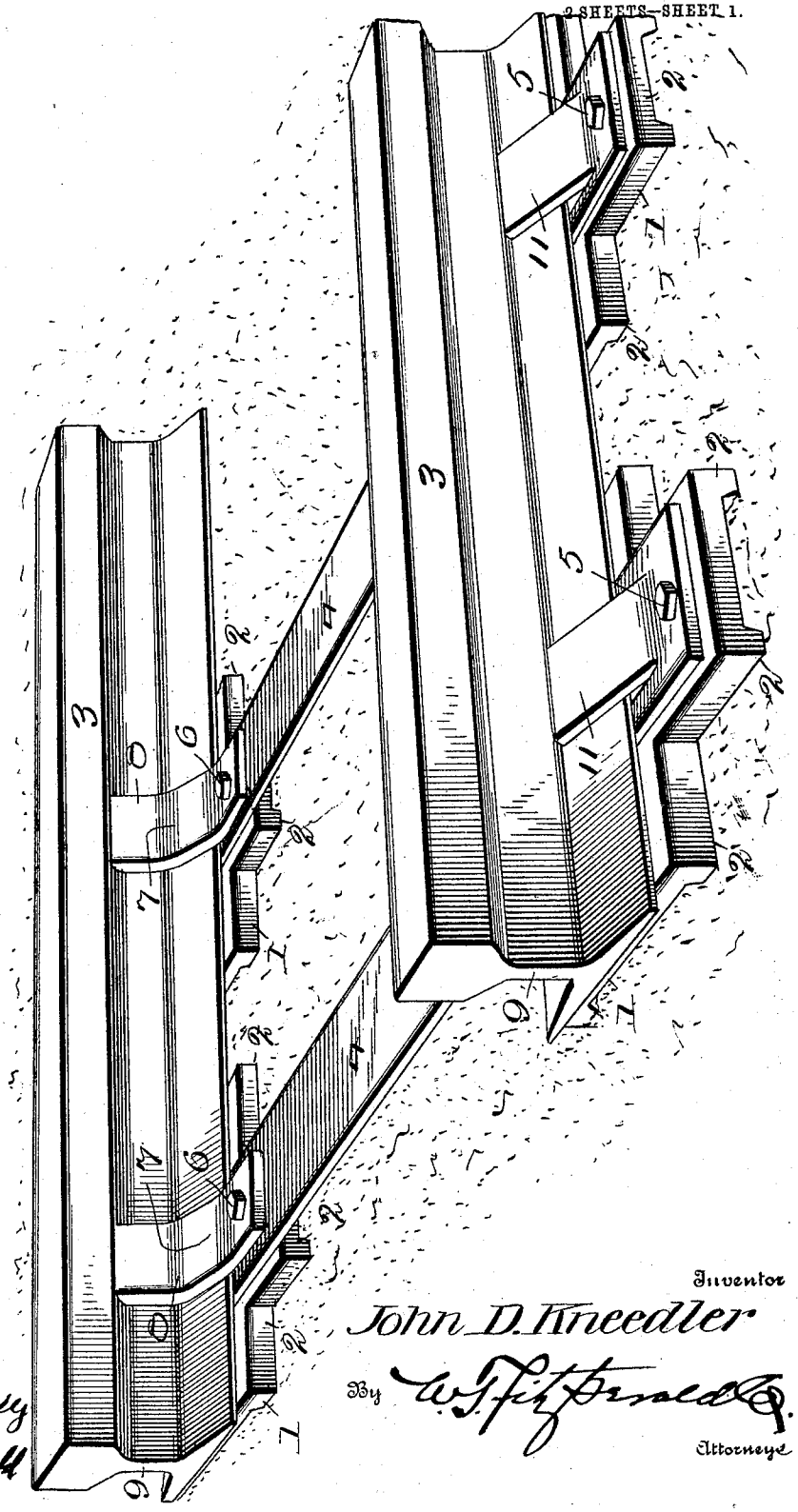
J. D. KNEEDLER.

ROAD BED EQUIPMENT.

APPLICATION FILED DEC. 17, 1904.

2 SHEETS—SHEET 1.

Fig. 1.



Witnesses

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2 SHEETS—SHEET 2.

Fig. 2.

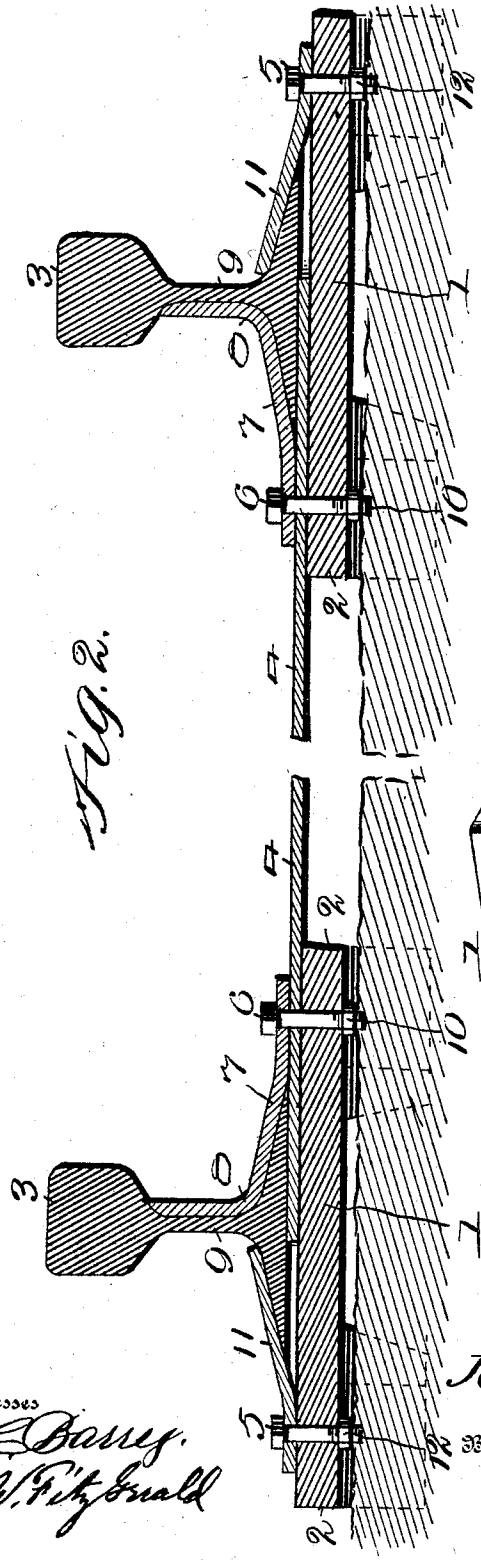
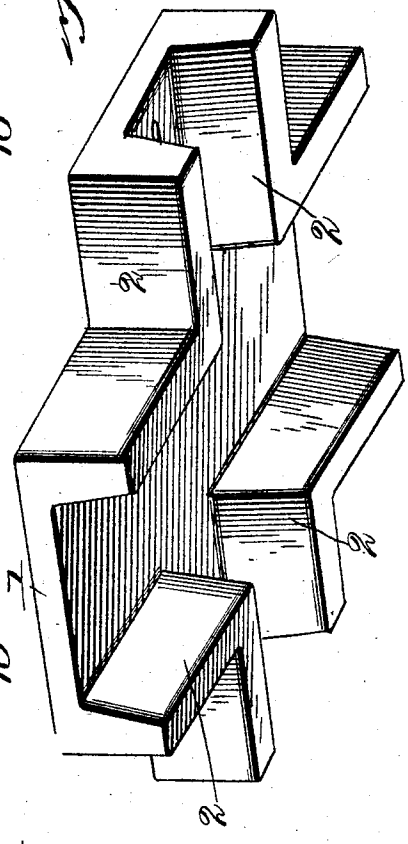


Fig. 3.



Witnesses

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UNITED STATES PATENT OFFICE.

JOHN DEAM KNEEDLER, OF SIOUX CITY, IOWA, ASSIGNOR OF ONE-HALF TO BUEL COUCH, OF SIOUX CITY, IOWA.

ROAD-BED EQUIPMENT.

No. 795,622. Specification of Letters Patent. Patented July 25, 1905.

Application filed December 17, 1904. Serial No. 237,277.

To all whom it may concern:

Be it known that I, JOHN DEAM KNEEDLER, a citizen of the United States, residing at Sioux City, in the county of Woodbury and State of Iowa, have invented certain new and useful Improvements in Road-Bed Equipments; and I do hereby 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 cross-ties and rail-securing appliances; and it consists of certain novel features of construction and combination of parts, the preferred form whereof will be hereinafter clearly set forth, and pointed out in the claim.

The prime object of my invention, among others, is to provide a firm and reliable support for the track-rails with the use of a minimum amount of material, whereby the track-rails will be sustained in their adjusted positions and prevented from casually moving out of place after such adjustment.

A further object is to insure against the slipping of the anchoring members which carry the track-rails and also insure great permanency of the road-bed equipment.

Other objects and advantages will be hereinafter made clearly apparent, reference being had to the accompanying drawings, which are made a part of this application, and in which—

Figure 1 shows a perspective view of my invention complete as applied to use. Fig. 2 is a transverse section of the trackway and road-bed provided with my appliance, while Fig. 3 is a detail showing in perspective the bottom of the anchoring member or rail-supporting plate ready for use.

In order to conveniently refer to all the parts of my invention and also to the elements placed in coöperative relationship thereto, numerals will be employed, the same numeral applying to a similar part throughout the several views, and, referring to the numerals on the drawings, 1 designates the base member which is designed to take the place of the ordinary tie and which may be made of any suitable material, as a low grade of cast-iron, or may be fashioned of cement, &c., it being understood that I reserve the right to employ any material which I may find suitable for the purpose. The base member, as will be observed by reference to the drawings, is so made that it presents a smooth finished upper surface, while its lower side is fashioned so as to have two intersecting channels formed by the angle-flanges 2.

I prefer that the intersecting channels above referred to may be wider at their lower sides than at their top, whereby when the flanges are forced into the surface of the ground forming the road-bed the material will be gathered by the walls of the members 2 and firmly packed together in the constricted upper portion of the channels, thus insuring that said angle-flanges will take deeply into the road-bed and prevent all movement of the base 1, upon which I dispose the track-rail 3 of the usual or any preferred construction, as clearly shown in Fig. 1.

It will be understood that the base members 1 are not placed in direct contact with the base of the track-rail inasmuch as I interpose between the base of the track-rail and said anchoring member the bar 4, which serves as a tie to hold the track-rails and the base members 1 in adjusted relationship to each other—that is to say, the tie proper or bar 4 is laid so that the ends thereof will rest upon the base members 1 after the latter shall have been properly embedded or anchored in their respective places in the road-bed, and said bar 4 is secured to said base member by suitable locking-bolts 5 and 6, the former being passed through registering apertures in the outer end of the bar 4 and the base member 1, while the latter is passed through registering apertures in said bar and base member between the rails.

In order that the track-rail may be sustained against inward movement, I provide the bracing arm or bracket 7, bent to conform exactly to the contour of a contiguous part of the track-rail and having the upwardly-extending terminal 8 adapted to rest against the web 9 of the rail, the inner end of the bracing member 7 being provided with an aperture through which the upper end of the bolt 6 is disposed, and it is therefore obvious that when the bolt 6 shall have been properly adjusted in place and secured by the locking-nut 10 the track-rail will be held firmly and securely in position. I am enabled to dispense with a separate and distinct bracing member similar to the bracing member 7 to sustain the outer side of the rail and hold it against spreading, and this I accomplish by striking up the integral tongue 11 from a contiguous part of the outer end of the bar 4,

as more clearly shown in Fig. 1. The tongue 11 is of proper length to reach inward against a contiguous part of the outer surface of the web of the rail, and since the member 11 is properly shaped to perform its office it will resist all strain placed thereon after the locking-bolt 5 shall have been entered in its position and secured by the retaining-nut 12, as will be clearly obvious.

It will thus be seen that the outer braces for the track-rail are formed from the material of the bar 4 without the necessity of employing a separate member for this purpose, thereby attaining the greatest possible strength with the use of a minimum amount of material.

It is obvious that the main purpose of the bar 4 is to hold the track-rails properly alined with each other, though it is thought that the great amount of frictional surface of the lower sider of the anchoring blocks or plates 1 will prove amply sufficient for the accomplishment of such a result.

From the foregoing specification, considered in connection with the accompanying drawings, it will be seen that I have provided a very desirable form of road-bed equipment for railway-tracks and that I am enabled to employ a low-grade ore in forming the plates or anchoring members 1, or they may even be fashioned from cheap material, as cement blocks, inasmuch as the bar 4 will serve as a reinforcement for said base member, holding the same against receiving undue strain from the load placed upon the rails.

It is obvious that the flanges or grooves upon the lower side of the anchoring-blocks may be variously fashioned and may be modified or changed to meet all requirements, and while I have described the preferred construction of the anchoring-blocks, as well as the other parts referred to, I wish to comprehend such substantial equivalents and substitutes as may be considered to fall fairly within the scope of my invention.

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

The combination with similar anchoring members, each having intersecting channels in its lower surface, said channels having their walls converging toward their upper ends; of a flat tie-plate, means at each end thereof for securing it to the anchoring members, rail-engaging tongues integral with and struck from the tie-plate at points between the securing means, a rail bracing and securing member upon the tie-plate adjacent each end, and securing means extending through and adapted to fixedly hold together the anchoring members, tie-plate and bracing and securing member.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOHN DEAM KNEEDLER.

Witnesses:
FRANK R. KIRK,
R. EARL BROWN.