No. 779,964. PATENTED JAN. 10, 1905.

J. W. PORTER.

RAILROAD TRACK.

APPLICATION FILED MAR. 7, 1904.

Fig. 1.

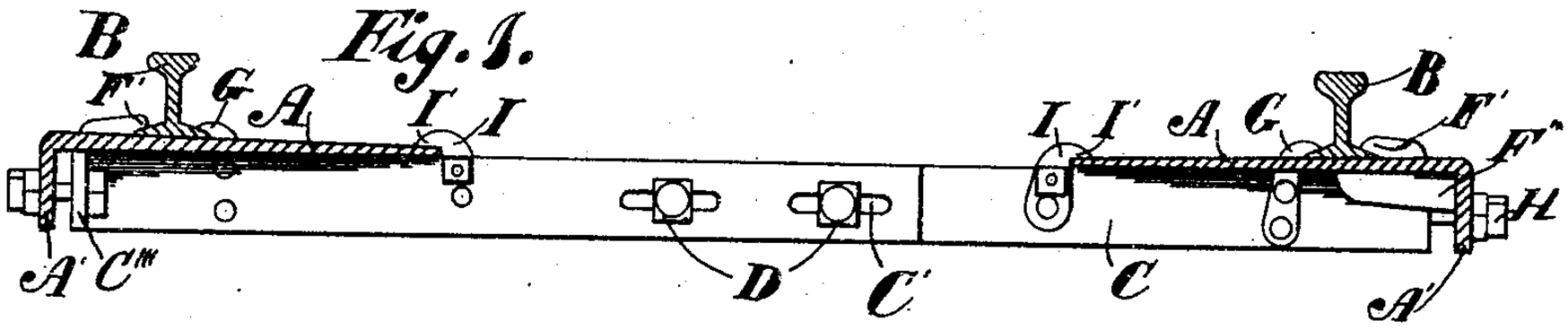

Fig. 2.

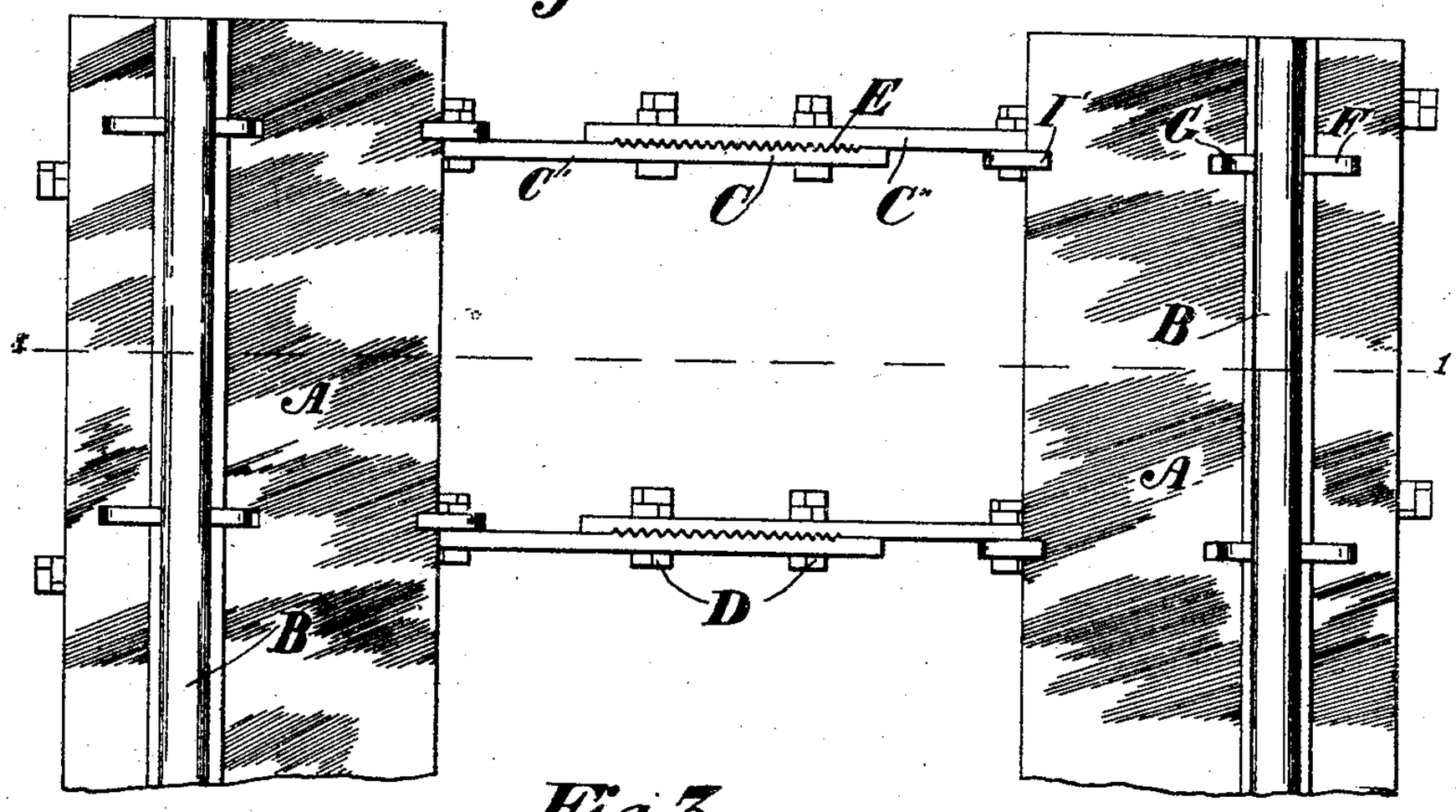

Fig. 3.

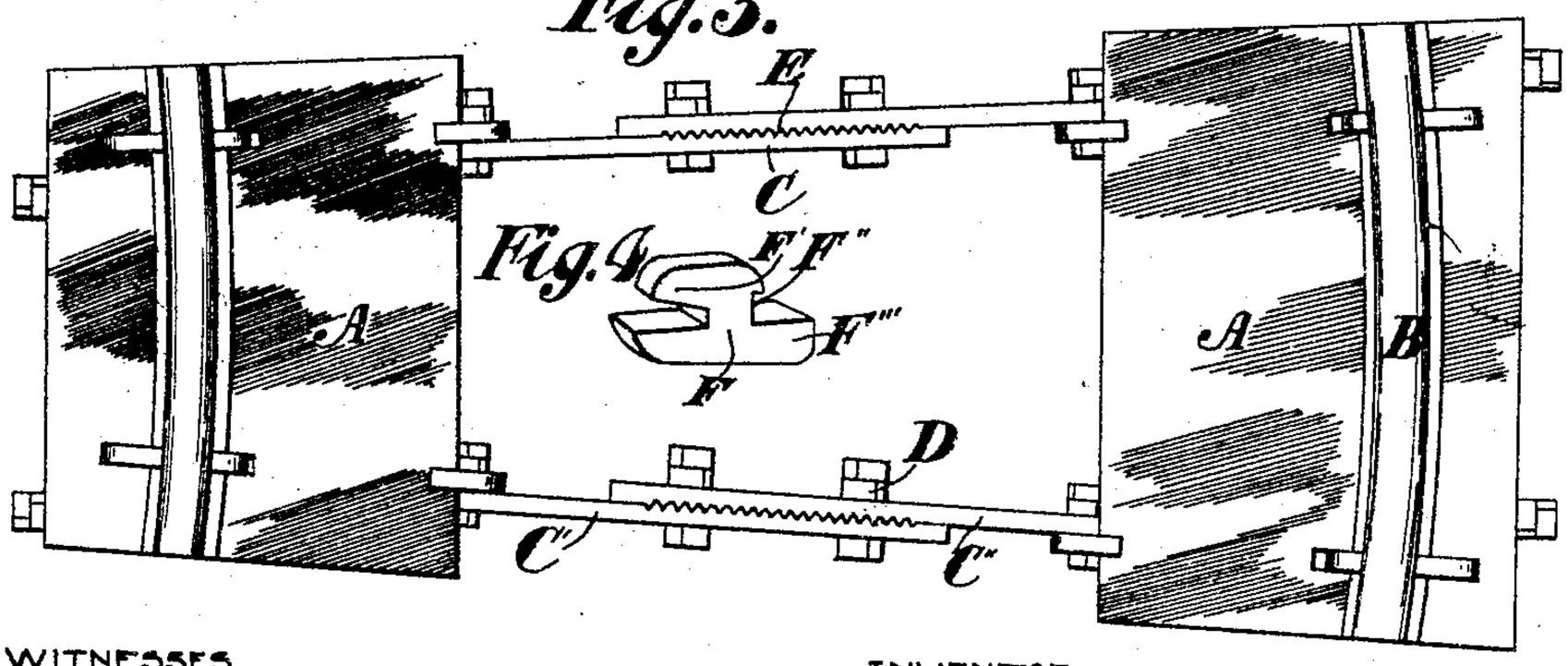

Fig. 4

WITNESSES

Trimble Barkelew

Margaret C. Nickelson.

INVENTOR

Jarvis W. Porter

BY Hazard & Harpham

ATTORNEYS.

No. 779,964. Patented January 10, 1905.

UNITED STATES PATENT OFFICE.

JARVIS W. PORTER, OF LOS ANGELES, CALIFORNIA.

RAILROAD-TRACK.

SPECIFICATION forming part of Letters Patent No. 779,964, dated January 10, 1905.

Application filed March 7, 1904. Serial No. 197,041.

To all whom it may concern:

Be it known that I, JARVIS W. PORTER, a citizen of the United States, residing at Los Angeles, in the county of Los Angeles and State of California, have invented new and useful Improvements in Railroad-Tracks, of which the following is a specification.

My invention relates to means to strengthen a railroad-track by constructing the same of steel or iron in such a manner that great rigidity and strength will be imparted to the rails and also to prevent the spreading of the rails, obviating thereby many accidents occasioned by spreading of the rails on railroad-tracks; and the object of my invention is to provide a track simple of construction, easily and quickly laid, which will prevent the spreading of the rails and prolong the lifetime of the track and prevent the wear and tear of the rolling-stock by providing a smooth and uniform rail over which the rolling-stock passes, and at the same time provide a track that can be taken apart and any defective portions removed and repaired or new parts substituted therefor when time will not permit the repair of the parts. I accomplish this object by means of the peculiar construction herein described, and shown in the accompanying drawings, in which—

Figure 1 is a transverse section of railroad-track embodying my invention, taken on line 1 1 of Fig. 2. Fig. 2 is a plan view of a fragment of a railroad-track embodying my invention. Fig. 3 is a section of a railroad-track embodying my invention, taken on a curve in the track. Fig. 4 is an enlarged perspective view of my rail-engaging lug-hook.

In the drawings, A represents a longitudinal sleeper having a downwardly-projecting flange A′ extending along the outer edge thereof and projecting down into the road-bed, forming a steadying-bar to connect the track with the road-bed and prevent any swaying effect in the rails which are securely attached thereto when trains are passing over the rails. These longitudinal sleepers are thickest and strongest at the outer edge and gradually decrease in thickness toward the inner edge, as shown in Fig. 1. Securely attached to these longitudinal sleepers are the rails B, the manner in which they are secured to the sleepers and cross-ties being hereinafter more particularly described. These sleepers are mounted on and connected to the outer end of the composite cross-ties C. These cross-ties are composed of two members C′ and C″, securely bolted together by bolts D at their inner ends. The inner ends of the members of these ties overlap each other in the center and are provided on the side thereof where they lap each other with corrugations E, which will effectually prevent the spreading of the rails. The apertures through the inner ends of the cross-ties are provided with longitudinal slots C′, by means of which the rails may be placed at any desired distance apart, affording ready means for the construction of different gage railroads. The cross-ties C, made up of two members, as hereinbefore stated, have on their outer ends a portion C‴, bent at right angles thereto. Projecting through an opening in this bent portion of the outer end and also through an opening in the downwardly-turned flange A′ on the sleeper are the sleeper-engaging bolts H. On the cross-tie members at a point thereon arranged to register with the inner edge of the sleeper is the sleeper-engaging lug I, detachably secured in each member of the cross-ties, this lug having a projecting end I′ extending over the inner edge of the sleeper and adapted to engage therewith and hold the sleeper in rigid contact with the cross-tie member. The longitudinal sleepers are secured to the cross-ties by what I term "lug-hooks." (Shown in Fig. 4 and marked F in the drawing.) These hooks have on their upper part a rail-engaging lug F′, which projects up and through a hole in the sleeper on the outer side of the rail and projects over the flange of the rail, as shown in Fig. 1. The neck of this lug, which connects the upper and lower member together, is provided with a recess F″, (see Fig. 4,) in which the edge of the sleeper is engaged. The outer end of the lower member F‴ projects under the sleeper, and the outer end thereof contacts with the downwardly-projecting flange A′ of the sleeper when nut H is screwed tight. On the inner side of the rail and con-

nected rigidly to the cross-ties are the rail-engaging lugs G. These lugs project up through an opening in the sleeper inside of the rail and are adapted to engage the flange on the rail. Now the device being in position as hereinbefore stated the tightening of the bolt H will bring the lug or hook G into engagement with the flange of the rail and crowd the rail over until the outwardly-projecting end F''' of the lug-hook engages the downwardly-projecting portion of the flange on the sleeper. The lug I will be drawn over and against the inner edge of the sleeper and hold the sleeper in contact with the cross-tie and rigidly secure the rail between the lugs G and the lug-hook F, as shown in Fig. 1, preventing any movement whatever of the rail on the longitudinal sleeper.

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

1. In a metal railroad-track, a cross-tie composed of two members, each member lapping the other in the center of the track and provided with two registering slots to receive bolts D to adjustably fasten the members together each member also provided with rail-engaging hooks G and sleeper-engaging hooks I each member also being bent at right angles at its outer end and having bolt-holes therein to receive the bolt H as shown.

2. In a metal railroad-track having angle-steel longitudinal sleepers the full length of the rail, the short angle of the sleeper embedded in the road-bed vertically the wide angle slotted at proper distances to receive the hooks G and the lug-hooks F holes in the vertical angle adapted to register with holes in angle in the outer ends of the cross-tie substantially as herein shown and described.

3. In a railroad-track, of the character herein described; a rail-engaging lug-hook F having the recess F'' to receive and engage the sleeper and adapted to pass up through a slot in the sleepers and engage the rail on the outer flange thereof and the sleeper at the neck of the lug-hook and at the same time abut the vertical angle on the sleeper.

4. In a railroad-track having a longitudinal sleeper such as herein described, means to secure the rail to said longitudinal sleeper, comprising the sleeper-engaging lug I detachably secured to the cross-ties and adapted to engage the inner edge of the sleeper; a rail-engaging lug G secured to the cross-tie and having a rail-engaging flange on the upper end thereof, and the lug-hook F provided with a rail-engaging lug F' having a flange-engaging lug F''' on the outer edge thereof to engage the flange on the sleeper substantially as herein shown and described.

5. A railroad-track of the character herein described comprising the composite cross-ties C formed of two members adjustably secured together in the center thereof by cross-bolts D having corrugations E on the inner side of the cross-ties to prevent the spreading of the rails, the said cross-ties being provided with longitudinal slots C' for the reception of the bolt D; a longitudinal sleeper A detachably secured to the outer end of the cross-ties, the longitudinal sleeper being provided with a downwardly-projecting flange A', the sleeper-engaging lug I secured to the cross-ties and the rail-engaging lugs G projecting through the sleeper and engaging the flange of the rail B thereon, the rail B detachably secured to the longitudinal sleeper; the lug-hook projecting through holes in the longitudinal sleeper and having rail-engaging lugs F' thereon also the flange-engaging lug F''', and the bolt H mounted to pass through openings in the flange A' and also through openings in the angular end of the cross-ties C substantially as herein shown and described.

6. In a railroad-track of the character herein described means to connect the rail with the longitudinal sleeper comprising a lug-hook having on its lower side projections adapted to engage the longitudinal sleeper on either side of the hole in the sleeper through which the upper part of the lug passes to engage the flange on the rail; an upper portion on the lug-hook one end of which passes over the rail and having a recess in the other end to receive the edge of the longitudinal sleeper, the outer edge of the lug-hook adapted to contact with the downwardly-turned flange on the longitudinal sleeper.

7. In a railroad-track of the character herein described having a longitudinal sleeper with a downwardly-projecting flange thereon and an opening through said flange for the passage therethrough of a bolt in combination with a cross-tie having an opening for the passage of a bolt in the outward end thereof and adapted to register with the bolt-opening in the flange in combination with a bolt in said opening in the cross-tie and in the flange substantially as herein shown and described.

In witness that I claim the foregoing I have hereunto subscribed my name this 29th day of February, 1904.

JARVIS W. PORTER.

Witnesses:
HENRY T. HAZARD,
G. E. HARPHAM.