

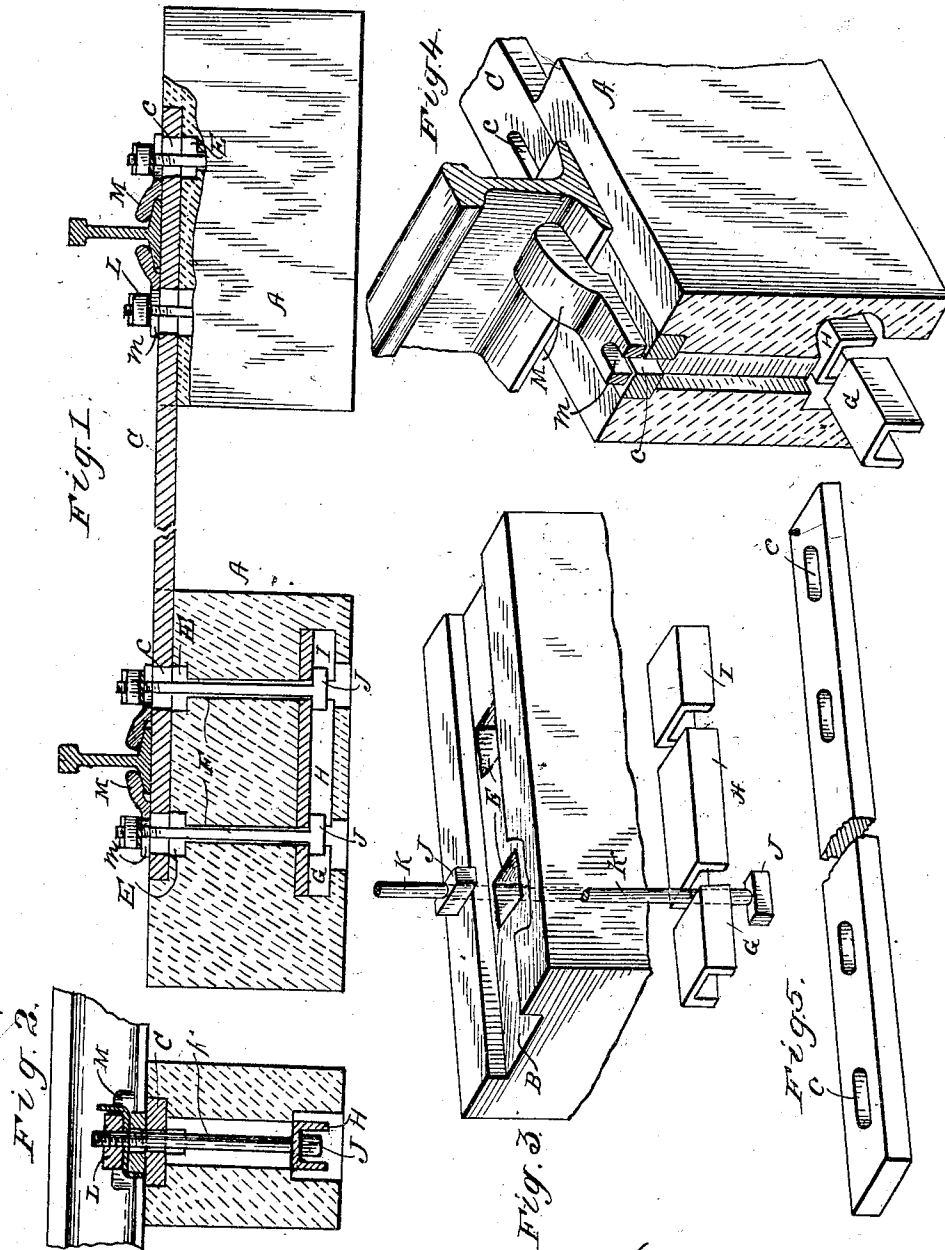
H. S. ROGERS.

RAILWAY TIE.

APPLICATION FILED SEPT. 17, 1908. RENEWED AUG. 17, 1909.

952.361.

Patented Mar. 15. 1910.



Witnesses

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UNITED STATES PATENT OFFICE.

HENRY S. ROGERS, OF MOUNT JEWETT, PENNSYLVANIA.

RAILWAY-TIE.

952,361.

Specification of Letters Patent. Patented Mar. 15, 1910.

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To all whom it may concern:

Be it known that I, HENRY S. ROGERS, a citizen of the United States of America, residing at Mount Jewett, in the county of McKean and State of Pennsylvania, have invented certain new and useful Improvements in Railway-Ties, of which the following is a specification.

This invention relates to railways and particularly to sleepers and ties and means for fastening a rail to the sleeper.

An object of this invention is to provide novel means whereby the rail securing bolts are removably applied to the sleepers, means being provided for preventing the rotation of the said bolts when the nuts are applied thereto.

Furthermore, an object of this invention is to provide novel means for permitting the application of the bolts to the rail clamps, to the tie bars of the sleepers and to the sleepers proper, the said bolts being adjustable therein, and means being provided for retaining the clamps, tie bars, and sleepers in operative relation.

A still further object of this invention is to provide a removable bolt-head engaging device applied to the sleepers, the said bolt-heads being engaged thereby to hold the nuts against rotation, provision being made for the ready removal of the bolts through the tops of the sleepers.

With the foregoing and other objects in view, the invention consists in the details of construction and in the combination and arrangement of parts to be hereinafter more fully set forth and claimed.

In describing the invention in detail, reference will be had to the accompanying drawings, forming part of this specification, wherein like characters denote corresponding parts in the several views, in which—

Figure 1, illustrates two of the sleepers with the rails and rail securing members applied thereto, some of the parts being shown in section and others in elevation. Fig. 2, is a sectional view taken transversely of one of the sleepers, showing a fragment of the rail in elevation. Fig. 3, is a perspective view showing fragments of a sleeper, bolt and housing. Fig. 4, is a perspective view showing a fragment of a sleeper and sectional views of a tie bar and a clamp. Fig. 5, is a perspective view of the tie bar.

In these drawings A, denotes concrete or composition sleepers, which are adapted to

be used in pairs as substitutes for the ordinary wooden cross tie, the said sleepers being adapted to support the rails. The sleepers are preferably stationed in such relation to the rail that the said rail rests on the upper surface of the sleeper and extends transversely thereover in order that the groove B, in the upper surface of the sleeper will extend transversely of the track, this arrangement being for the purpose of causing the sleepers to be secured together in pairs by a tie rod C, which is preferably embedded in the groove B, of the sleeper. That is to say, the relation of parts is such that the groove is equal in depth to the thickness of the tie bar so that when the tie bar is applied to the groove the upper surface of the tie bar will be flush with the upper surface of the sleeper. While I have described the tie bar and sleeper in the singular number, it is to be understood that a series of such sleepers and such tie bars are utilized in the construction of a road bed.

Each sleeper is preferably provided with two recesses E, formed in the bottom of the groove B, and the said sleeper is further provided with transversely elongated apertures F, forming a continuation of the recesses E, the said apertures extending through to the recessed bottom of the sleeper. Each sleeper is further provided near the bottom thereof with an inverted U-shaped housing formed of three sections G, H, and I, embedded in the sleeper, the said sections being separated from one another a distance equal to, or slightly greater than the width of the heads J, of the bolts K, which are designed to be inserted in the apertures F, for the purpose of anchoring and retaining the clamps and tie bars (to be hereinafter described). In utilizing bolts in connection with the housing, the bolt heads are applied to the apertures F, with the said heads extending transversely of the sleeper in which position the said heads pass through the spaces intervening between the ends of the sections G, H, and I, of the housing, after which the said bolts are given a quarter turn causing the heads to lie in a plane longitudinally of the inverted U-shaped housing, after which the bolts are moved vertically to cause the heads thereof to enter the housing in which position the threaded shanks of the bolts project through the tie bar and clamps and are in position for the application of the nuts L.

The tie bars C, and the clamps M, are preferably provided with longitudinally disposed slots *c*, and *m*, respectively, which are adapted to aline with the recesses E, in the sleepers, and when the tie bar and clamps are in the position indicated, the slots *c*, and *m*, respectively, cross the apertures F. By reason of this relation of parts the elongated heads of the bolts are inserted through the slots *c*, and *m*, respectively, until the said heads lie in the recess E, of the sleepers, when it will be necessary to give to the bolts a quarter turn to cause the heads to aline with the apertures F. Such turning of the bolts will permit the heads of the bolts to pass down into the apertures F, through the sleepers until they project below the lower edges of the housings in which position they are free to be given a quarter turn to cause them to aline with the housings when, as heretofore stated, the said bolts may be drawn vertically until the heads of the bolts are seated in the housing in which position the nuts can be applied to the bolts without liability of the bolts turning when the nuts are screwed to bind the clamp, tie bar and sleeper together. It is understood, of course, that the nose or inner end of each clamp before being bound by the nut is adjusted to overlie the base flange of the rail.

I claim:

1. In a railway equipment, sleepers having grooves with recesses in the bottoms of the grooves, apertures merging into the recesses, said apertures extending vertically and being elongated transversely of the sleeper, tie bars having longitudinally disposed slots registering with the recesses of the sleepers, clamps having slots adapted to register with the slots of the tie bars, bolts having transversely elongated heads adapted to turn in the recesses of the sleepers under

the tie bars and enter the apertures, and a sectional housing, the sections of which are separated, near the bottom of the sleeper adapted to engage the heads of the bolts.

2. In a railway equipment, sleepers having grooves with recesses in the bottoms of the grooves, apertures merging into the recesses, tie bars having longitudinally disposed slots registering with the recesses in the sleepers, clamps having slots adapted to register with the slots of the tie bars, bolts having transversely elongated heads adapted to turn in the recesses of the sleepers under the tie bars and enter the apertures, means on the bolts for holding the clamps in place, a housing near the bottom of the sleeper arranged in sections separated at points under the apertures adapted to engage the heads of the bolts for preventing their rotation.

3. In a railway equipment, sleepers having grooves with recesses in the bottoms thereof and apertures merging into the recesses, said apertures extending vertically in the sleepers and being elongated transversely of the sleepers, tie bars having longitudinally disposed slots registering with the recesses in the sleepers, clamps having slots adapted to register with the slots of the tie bars, bolts having transversely elongated heads adapted to turn in the recesses of the sleepers under the tie bars and enter the transversely elongated apertures, and means engaging the heads of the bolts to prevent rotation of the bolts.

In testimony whereof I affix my signature in the presence of two witnesses this 29th day of August, 1908.

HENRY S. ROGERS.

Witnesses:

EDWIN E. DANE,
SAMUEL PHILLIP.