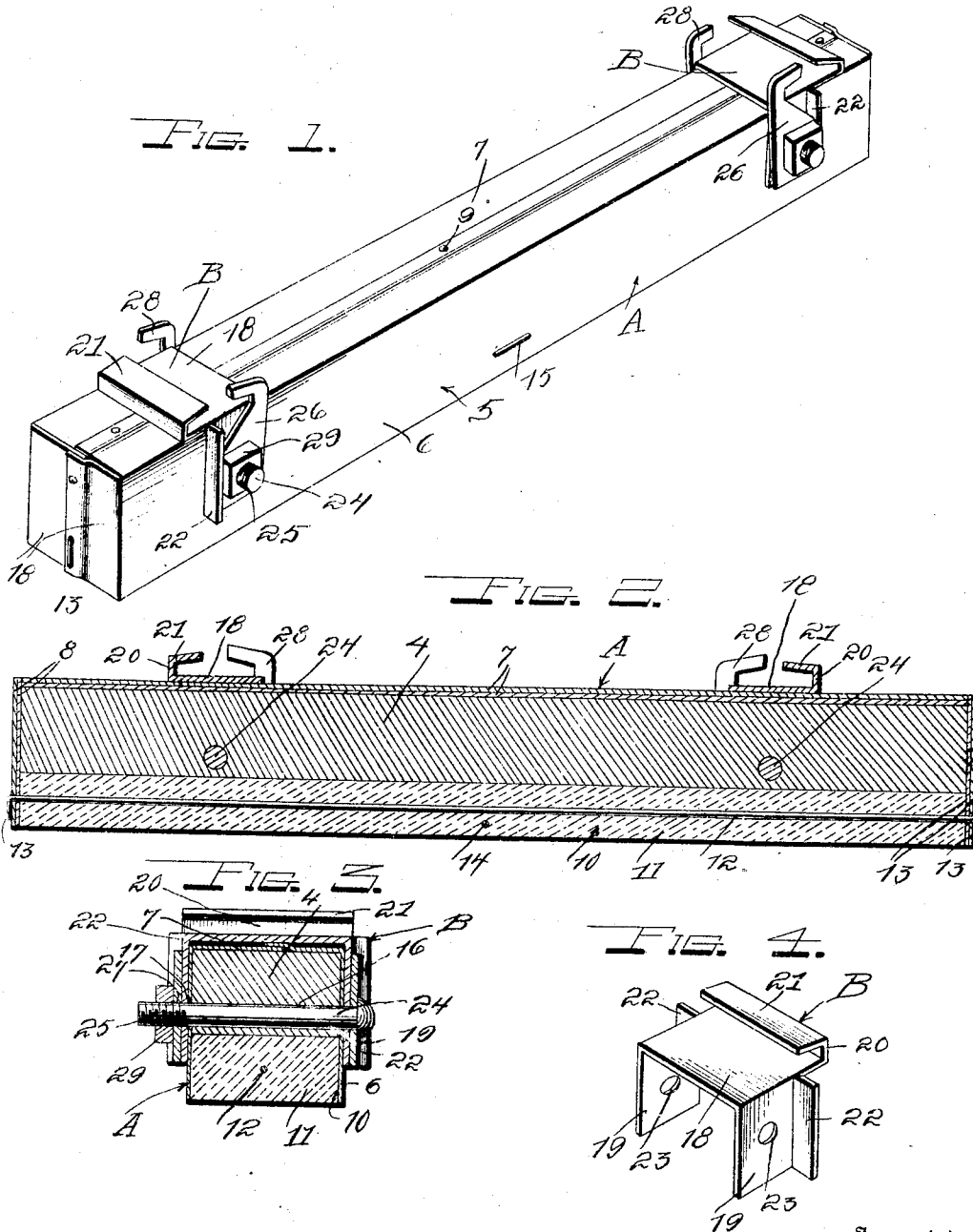


T. P. HORGER.
 COMBINED RAILWAY TIE AND RAIL FASTENING.
 APPLICATION FILED FEB. 29, 1912.

1,056,543.

Patented Mar. 18, 1913



Inventor

T. P. Horger.

By

Charles Chanab

Attorneys

Witnesses

Frank S. Ratcliffe.

George Tatro

UNITED STATES PATENT OFFICE.

THOMAS P. HORGER, OF ORANGEBURG, SOUTH CAROLINA.

COMBINED RAILWAY-TIE AND RAIL-FASTENING.

1,056,543.

Specification of Letters Patent.

Patented Mar. 18, 1913.

Application filed February 29, 1912. Serial No. 680,598.

To all whom it may concern:

Be it known that I, THOMAS P. HORGER, a citizen of the United States, residing at Orangeburg, in the county of Orangeburg, State of South Carolina, have invented certain new and useful Improvements in Combined Railway-Ties and Rail-Fastenings; 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.

This invention relates to improvements in combined railway ties and rail fastenings.

The principal object of the invention is to provide a novel form of metallic casing for wooden ties for preventing moisture from contacting with said tie, and thereby insuring the tie of a much longer life.

Another object of the invention is to provide a sectional casing for the purpose described which may be readily adjusted to fit wooden ties of various widths.

A further object of the invention is to provide a novel form of rail chairs for such ties which include rail locking dogs, the dogs being held against movement by the chair.

A still further object of the invention is to provide a tie of the character described which is composed of a relatively few number of parts, is therefore simple in construction and is cheap to manufacture.

With these and other objects in view, the invention consists in the construction and novel combination of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended; it being understood that various changes in the form, proportion, size and minor details of construction within the scope of the claims may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawing: Figure 1 is a perspective view of a tie constructed in accordance with my invention, Fig. 2 is a longitudinal sectional view through such a tie, Fig. 3 is a cross sectional view therethrough, and Fig. 4 is a perspective view of one of the chairs.

Like reference numerals designate corresponding parts in all the figures of the drawing.

Referring to the drawing, 4 designates a rectangular wooden tie, and this tie is inclosed by a sectional casing A. This casing

comprises opposed sections 5—5 having longitudinal walls 6—6, overlapping tops 7—7 and overlapping ends 8—8. The overlapping tops 7 and ends 8 are secured to the tie by means of nails 9 or other suitable fastening means. The walls 6 and ends 8 of the casing project below the tie 4 to form a hollow base 10. This hollow base is filled with plastic material 11, such as cement or the like, and a longitudinally disposed tie rod 12 is embedded in the composition, and has its ends extending outwardly through openings formed in the overlapping ends 8 of the casing, the extreme ends 13—13 of the tie rod being bent at right angles to prevent any outward movement of the ends 8 of the casing. A transversely disposed tie rod 14 is also embedded in the plastic material, and the ends thereof project through suitable openings formed in the side walls 6 of the casing, the extreme ends 15—15 thereof being bent at right angles to prevent any outward lateral movement of said side walls. Formed in the tie 4 adjacent either end thereof is a transverse opening 16, which registers with openings 17—17 formed in the side walls 6 of the casing.

My invention further comprises a pair of rail chairs B. Each chair is formed from metal, and comprises a base 18 which is transversely disposed upon the top of the tie, and depending legs 19—19 which embrace the side walls 6 of the said tie. The outer longitudinal edge of the base 18 is upwardly bent, as at 20, and thence inwardly as at 21, to form a rail engaging flange. A laterally directed vertical flange 22 extends along the outer edge of each leg 19 of the chair B. Each leg of the chair is formed with an opening 23 which registers with the openings 17 of the casing and consequently with the openings 16 of the tie. A bolt 24 is disposed within said registering openings, and this bolt is provided with a threaded end 25. Rail clamping dogs 26 formed from flat metal have their body portions each centrally formed with an opening 27 adapted to receive one end 25 of the bolt 24. The upper end of each dog is formed with an outwardly directed hook 28 for engagement with the inner base flange of the rail. The outer longitudinal edge of each dog bears flush against the flange 22 of the chair, and as a result, all tendency of the dog to swing upon the bolt will be prevented. Nuts 29 are associated

with the threaded ends 25 of the bolt 24, and these nuts are adapted to be engaged by the flanges 22 in such a manner as to prevent the same from becoming accidentally unscrewed. It is to be observed in this connection that the flanges 22 are of a width slightly greater than the width of the hooks 26, so that as the nuts 29 are screwed home, the resiliency of the flange 22 will be sufficient to permit of the nuts being turned.

When it is desired to remove a rail, the nuts 29 and the dogs 26 can be easily removed as will be readily understood. When it is desired to remove a tie, it is only necessary to first remove the nuts 29, then the dogs 26, then the bolt 24, and lastly, the chair B. It will thus be observed that one of these ties can be readily withdrawn from under the rail without disturbing any of the other ties.

What is claimed is:

1. In combination with a tie having transversely disposed openings formed adjacent either end thereof, of bolts disposed within each opening and having its ends projecting beyond the tie, of a rail chair transversely disposed upon each end of the tie and having engagement with the ends of a respective bolt, each chair including a transversely disposed rail engaging flange, and rail engaging hooks carried by the outer ends of the bolt.

2. In combination with a tie having transversely disposed openings formed adjacent either end thereof, of bolts disposed within each opening and having its ends projecting beyond the tie, of a rail chair transversely disposed upon each end of the tie, each chair comprising a base and depend-

ing legs, the latter embracing the side walls of the tie and perforated to receive the outer ends of a respective bolt, a rail engaging flange projecting longitudinally from one edge of the base of said chair, and rail engaging hooks carried by the outer ends of the bolt.

3. In combination with a tie having transversely disposed openings formed adjacent either end thereof, of bolts disposed within each opening and having its ends projecting beyond the tie, of a rail chair transversely disposed upon each end of the tie, each chair comprising a base and depending legs, the latter embracing the side walls of the tie and perforated to receive the outer ends of a respective bolt, a rail engaging flange projecting longitudinally from one edge of the base of said chair, a laterally directed longitudinal flange extending along the outer edge of each leg of said chair, rail engaging hooks engageable with the ends of a respective bolt and bearing against the last mentioned flanges of the chair to prevent swinging movements of said hooks.

4. In a rail fastening device, a rail chair adapted to be secured to a tie and including a transversely disposed rail-engaging flange, and rail engaging hooks carried by the chair and adapted for engagement with the base flange of the rail opposite the flange of the chair.

In testimony whereof, I affix my signature, in presence of two witnesses.

THOMAS P. HORGER.

Witnesses:

T. O. S. DIBBLE,
W. P. BRUNSON.