

F. HOLIK.
RAILWAY RAIL TIE AND RAIL FASTENER.
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1,060,903.

Patented May 6, 1913.

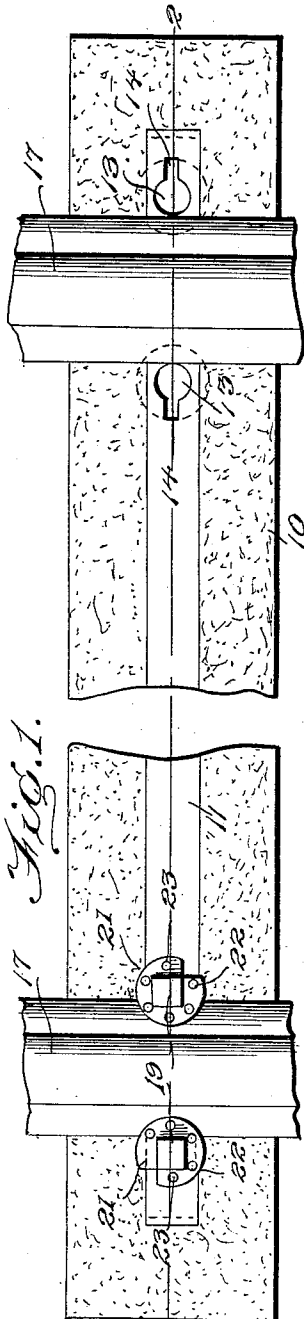


Fig. 1.

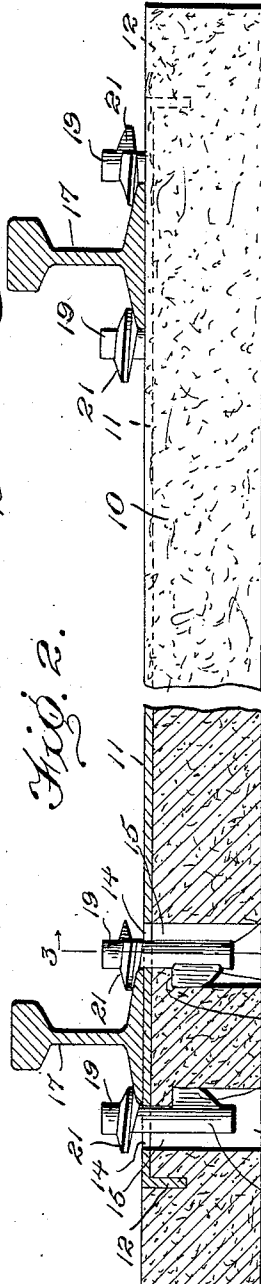


Fig. 2.

Fig. 5.

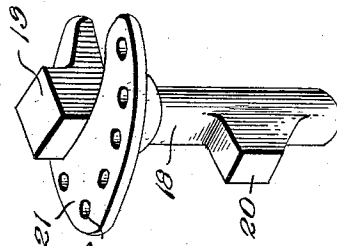


Fig. 4.

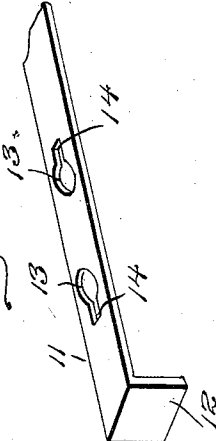
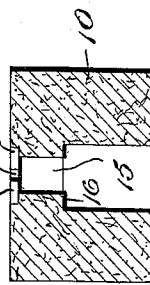


Fig. 3.



Witnesses

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FRANK HOLIK, OF PRAGUE, OKLAHOMA.

RAILWAY-RAIL TIE AND RAIL-FASTENER.

1,060,903.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, FRANK HOLIK, citizen of the United States, residing at Prague, in the county of Lincoln and State of Oklahoma, have invented certain new and useful Improvements in Railway-Rail Ties and Rail-Fasteners, of which the following is a specification.

This invention relates to improvements in railway ties, more particularly to ties constructed principally of concrete or the like, and has for one of its objects to improve the construction and increase the efficiency and utility of devices of this character.

Another object of the invention is to provide a simply constructed device whereby the rails are secured in position by detachable fastening devices and thus obviating the employment of spikes or like securing means which require to be driven into the tie material.

Another object of the invention is to provide a simply constructed combination tie and rail-holding device of improved construction and increased utility.

With these and other objects in view, the invention consists in certain novel features of construction as hereafter shown and described, and then specifically pointed out in the claims, and in the drawings illustrative of the preferred embodiment of the invention: Figure 1 is a plan view of one of the improved ties; Fig. 2 is a side elevation with one portion in section on the line 2—2 of Fig. 1; Fig. 3 is a transverse section of the tie on the line 3—3 of Fig. 2 looking in the direction of the arrow; Fig. 4 is a detached perspective view of a portion of one of the holding plates; Fig. 5 is an enlarged perspective view of one of the rail holding and locking devices.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

The body of the improved tie is preferably constructed of concrete or cement, and is represented as a whole at 10. The body of the tie may be of any required length or transverse area, but will generally be about 8 feet 6 inches long, 8 inches wide and 6 inches deep which are the dimensions usually employed for such devices, but any required proportions of materials may be employed in the compound which constitutes the tie. Embedded in the upper face of the

tie and extending longitudinally of the same, is a metal plate or supporting member 11 having down-turned ends 12 which extend into the tie material. The upper face of the plate 11 is preferably flush with the upper surface of the tie as shown. The plate 11 is provided near its ends with apertures 13 spaced apart to correspond to the width of the tie flange of the rails, and are arranged in pairs and located to correspond to the "gage" of the rails. Each aperture is provided with a laterally directed slot 14 of less width than the aperture, as shown. The body of the tie is provided with recesses 15 corresponding in outline to the apertures 13, and the lateral extension 14. The recess is enlarged laterally at its lower portion to provide an intermediate stop shoulder 16, as shown.

The rails, indicated conventionally at 17, bear across the tie 10 and the plate 11 and between the apertures 13, as shown. The fastening devices whereby the rails are secured in position, consist of a stock or body 18 having a wrench-receiving head 19 at one end and a laterally extending holding lug 20 near the lower end. Extending from the stock 18 at its upper end and next to the wrench head 19, is a screw cam extension 21 which is designed to bear over the tie flange of the rail when the stock with its lateral lug 20 is inserted through the apertures 13 and recess 15. The lateral extension 14 of the aperture is designed to receive the lateral extension 20 of the stock and thus permit the stock to be located through the plate and into the tie with its screw extension 21 bearing over the rail and the lug 20 within the enlarged portion of the recess and extending beneath the shoulder 16. By this simple means an effectual locking device is produced whereby the rail may be firmly clamped in position upon the plate 11 and the upper face of the tie and strain applied by rotating the stock by a wrench applied to the head 19 and causing the screw cam 21 to operate over the upper portion of the rail and thus firmly clamp the latter in place, the stop lug 20 operating beneath the shoulder 16 as the stock is rotated, as will be obvious.

The cam projection 21 is provided with a plurality of apertures 22 through which a holding bolt 23 may be extended and engaged in the lateral extension 14 of the aperture 13 in the plate 11, and thus prevent any retroactive movement of the holding device

under the jars and concussions to which the rails are subjected when in use.

The improved device is simple in construction, and can be inexpensively manufactured and applied without changing the construction of the rail.

By this simple means it will be obvious that the rails may be readily secured in place and as readily detached when required for changing or repairs.

What I claim is:—

1. A railway tie formed of plastic material and having vertical recesses extending therethrough and arranged in pairs corresponding in distance apart to the width of the tie flange of a railway rail, the lower portions of the recesses being enlarged laterally to provide an intermediate stop shoulder, a bearing plate having down-turned ends and embedded in the upper face of the body of the tie, said plate having apertures registering with the recesses of the tie and a fastening device comprising a stock extending through the plate aperture and into the tie recess and having a lateral lug near one end and a laterally extending extension near the other end, the extension having its lower face in screw form and adapted to bear over the tie flange of a rail and the lateral lug engaging beneath the stop shoulder of the tie.

2. A railway tie formed of plastic material and having vertical recesses extending therethrough and arranged in pairs corresponding in distance apart to the width of the flange of a railway rail, the lower portions of the recesses being enlarged laterally to provide an intermediate stop shoulder, a bearing plate upon the upper face of the body of the tie and provided with apertures registering with the recesses of the tie, each of the plate apertures having a lateral extension, a fastening device comprising a stock extending through the aperture of the plate and into the recess of the tie and having a lateral lug near one end and a laterally extending extension at the other end, the extension having its lower face in screw form and adapted to bear over the flange of a rail, and the lateral lug engaging beneath the stop shoulder of the tie, said lateral extension having a plurality of apertures, and a bolt extending through one of said apertures and into the aperture extension of the plate.

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

FRANK HOLIK. [L. s.]

Witnesses:

LESLIE WILSON,
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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."