

G. EDICK.
RAILWAY RAIL FASTENER.
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1,048,398.

Patented Dec. 24, 1912.

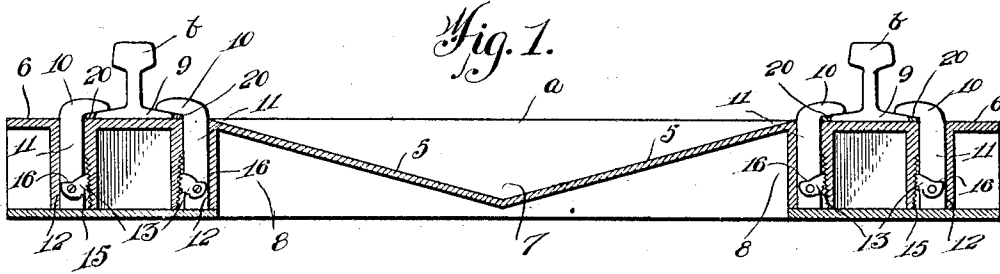


Fig. 2.

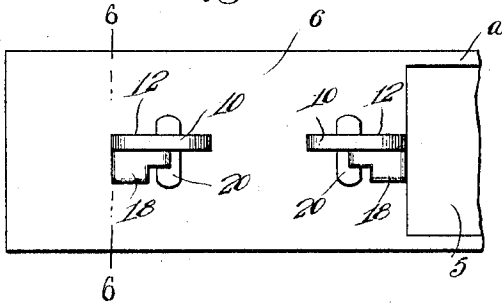


Fig. 3.

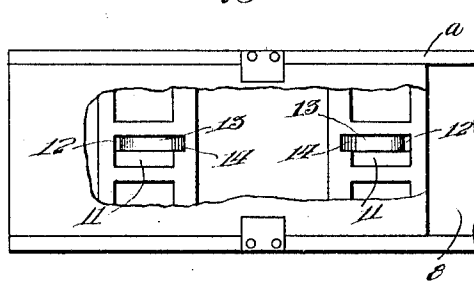


Fig. 4.

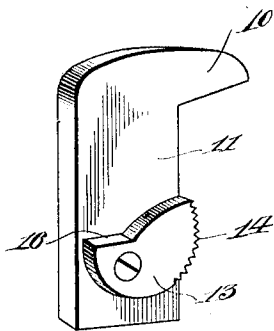


Fig. 5.

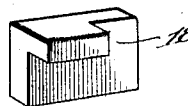
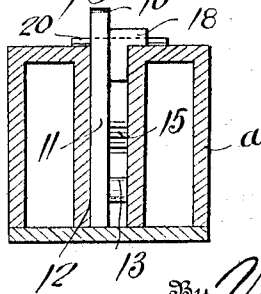


Fig. 6.



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GEORGE EDICK, OF ALBUQUERQUE, NEW MEXICO.

RAILWAY-RAIL FASTENER.

1,048,398.

Specification of Letters Patent.

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Application filed February 7, 1912. Serial No. 676,037.

To all whom it may concern:

Be it known that I, GEORGE EDICK, a citizen of the United States, residing at Albuquerque, in the county of Bernalillo and State of New Mexico, have invented new and useful Improvements in Railway-Rail Fasteners, of which the following is a specification.

The invention has for its object the provision of means adapted for securing railway rails to a cross tie and for adapting the cross tie to crowd the filling of the road bed toward its rail supporting portions; and to this end the invention consists in certain improved constructions, arrangements, and combinations of devices, which will be fully described hereinafter, and then pointed out in the claims.

Other objects will appear and be better understood from that embodiment of my invention of which the following is a specification, reference being had to the accompanying drawings forming a part hereof, in which:

Figure 1 is a vertical longitudinal section of the invention. Fig. 2 is a detail plan of one end portion. Fig. 3 is a bottom plan of Fig. 2 with a portion of the bottom plate broken away. Fig. 4 is a detail perspective of the rail clamping pin. Fig. 5 is a similar view of the filling block. Fig. 6 is a detail sectional view taken approximately upon the line 6—6 of Fig. 2.

The cross tie *a* is preferably of metal and may be cast or otherwise formed into the shape shown. The downwardly inclined portions 5—5 at the inner ends of the rail chairs or tables 6—6 afford an upper chamber 7 for ballast which serves to increase the weight of the tie when it is positioned in the road bed, and lower chambers 8—8 for suitable filling material, such as ballast. The inclined portions 5—5 act to crowd the ballast in the lower chambers 8—8 to the outer ends of the said chambers and thus pack the ballast material against the rail supporting portions or tables where it is most needed.

The base flanges 9—9 of the rails *b* rest on the tables or chairs 6—6 and are engaged and clamped to the tables by the bits 10—10 which project laterally from the shanks 11—11 of the keys. The vertical openings 12—12 in the tables or chairs 6—6 are spaced

apart for a distance corresponding approximately to the width of the ordinary rail base flange and are adapted to receive the shanks 11—11 of the keys. The dogs 13—13 which are pivoted to the shanks 11—11 are adapted to pass through the openings 12—12 with the said shanks. These dogs are of the gravity type and their enlarged or weighted ends have teeth 14 which interlock with teeth 15 on one of the walls of the openings 12. The dogs yield during the operation of bringing the bits 10—10 into engagement with the base flanges 9—9 which is done by inserting the shanks 11—11 into the openings 12—12 but interlock with the teeth 15 and prevent movement of the keys when the same tend to move outwardly or upwardly. In order to disengage the dogs, pressure is applied with a suitable implement on shoulders 16—16 on their lighter ends. This will have the effect of moving the heavier or serrated ends upwardly and away from the teeth 15 and thus admit of the extraction of the keys. The spaces above the dogs when the shanks are arranged in the openings are filled with the filling blocks 18—18. The presence of these elements prevents the entrance of dirt and other foreign matter into the openings and also upward movement of the dogs which might be caused by vibration produced by passing cars.

In the form shown in Fig. 1 the base flanges of the rails are relatively narrow and the spaces between the edges of the base flange and the adjacent sides of the shanks of the keys are filled up by the fillets 20—20 which are adapted to prevent lateral movement of the rail upon whose base flange they bear. The fillets 20 each comprise a substantially rectangular member which is of a size sufficient to snugly contact with the longitudinal edges of the base flanges of the rails and with the shanks 11 of the keys beneath their bits 10. The filling blocks 18 are then arranged within the openings 12, filling the said openings and contacting with one of the faces of the keys and partially over-lying and engaging the fillets 20.

Although I have shown and described one embodiment of my invention it is to be understood that I am not to be limited to the specific arrangement and construction of parts since various changes may be made, within the scope of the appended claims

without departing from the spirit or sacrificing any of the advantages of the invention.

What I claim as new is:

5 1. In a railway rail fastener, the combination of a cross tie having a rail supporting surface and vertical openings on either side of said supporting surface, keys including rail engaging bit portions, and shank portions adapted for insertion into said openings, and gravity locking dogs on said shanks adapted to engage with one side wall of said openings.

10 2. In a railway rail fastener, the combination of a cross tie having a rail supporting

surface and vertical openings on either side of said supporting surface, keys including rail engaging bit portions, and shank portions adapted for insertion into said openings, gravity locking dogs on said shanks adapted to engage with one side wall of said openings, and filling blocks adapted to be inserted into said openings and bear on said locking dogs. 20

In testimony whereof I affix my signature in presence of two witnesses. 25

GEORGE EDICK.

Witnesses:

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JOSEPH F. SULZER.

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