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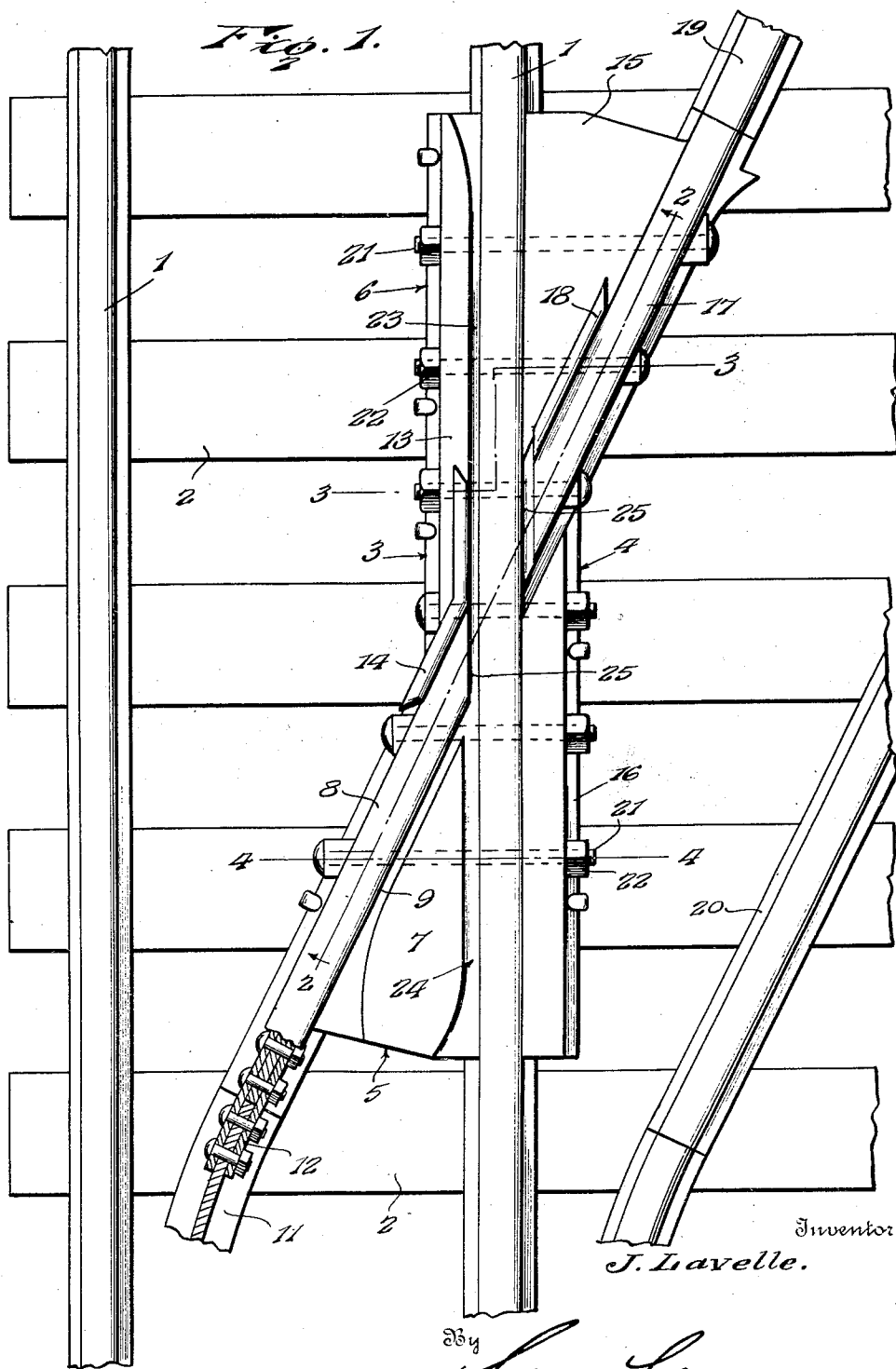
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1,802,057

RAILWAY FROG

Filed Nov. 27, 1929

2 Sheets-Sheet 1



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Fig. 2.

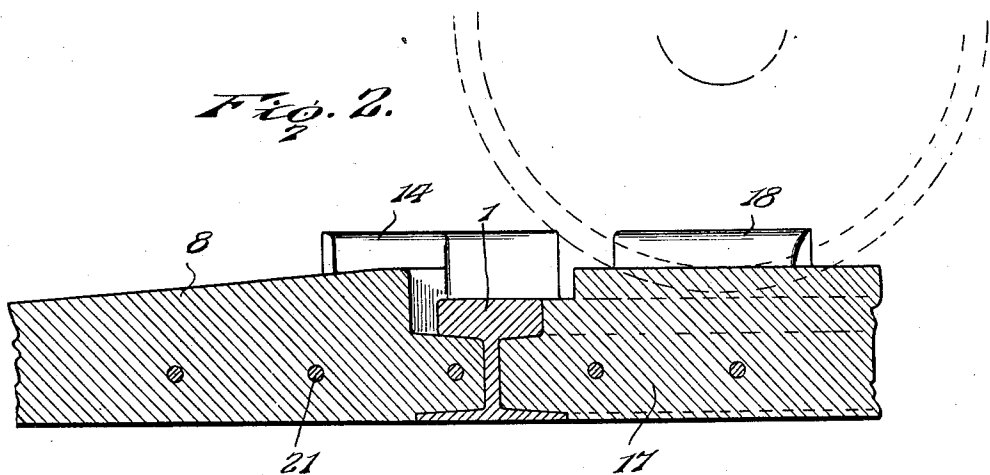


Fig. 3.

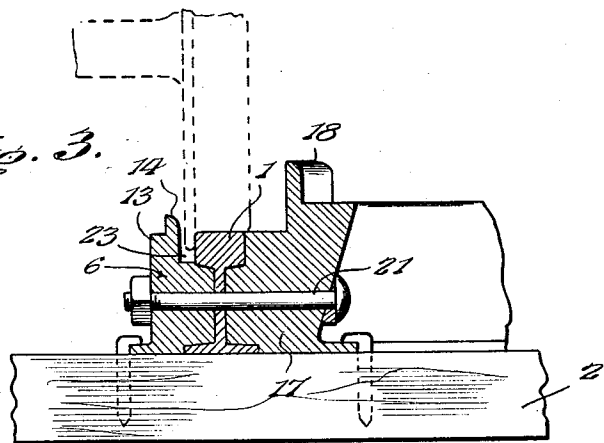
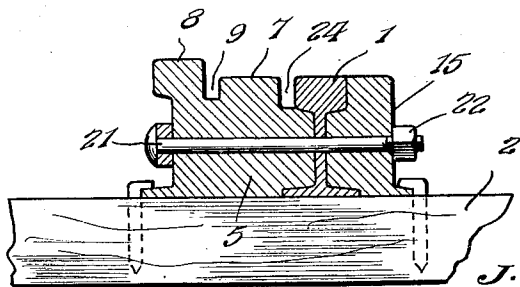


Fig. 4.



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UNITED STATES PATENT OFFICE

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RAILWAY FROG

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The present invention is directed to improvements in railway crossing frogs.

The primary object of the invention is to provide a device of this character so constructed that it can be easily and quickly applied to a rail without the necessity of separating the same, or notching or recessing the rail to permit free passage of the wheel flanges from the main rails to the siding rails.

Another object of the invention is to provide a device of this character so constructed that the danger of the wheels leaving the main rails when crossing over the same will be eliminated.

Another object of the invention is to provide a device of this character which is exceedingly simple in construction, efficient in operation, durable, and one which can be manufactured at a small cost.

With these and other objects in view, this invention resides in the novel features of construction, formation, combination and arrangement of parts to be hereinafter more fully described, claimed and illustrated in the accompanying drawings, in which:

Figure 1 is a top plan view of the device.

Figure 2 is a sectional view on the line 2—2 of Figure 1.

Figure 3 is a sectional view on the line 3—3 of Figure 1.

Figure 4 is a sectional view on the line 4—4 of Figure 1.

Referring to the drawings, 1 designates the rails of the main line which are fixed to the cross ties 2 in the customary manner. The cross over frog consists of cast metal inner and outer members 3 and 4, the former including a substantially triangular shaped section 5 and an integrally connected elongated block section 6. The triangular section has formed upon its upper surface a substantially tapered boss 7 and spaced from the tread 8 by a groove 9, said tread being connected with the bridge rail 11 by a fish plate 12. The block section 6 includes a longitudinally extending rib 13 and formed integral with said rib and tread 8 is a shroud 14. The section 4 also includes a substantially triangular section 15 and an integrally connected elongated block section 16, the section 15 having formed inte-

gral with it a tread 17, and formed integral with this tread is a shroud 18. The tread 17 has connected thereto the switch rail 19 and cooperating with the switch rails 11 and 19 is the companion switch rail 20.

The members 3 and 4 are placed with their inner faces against the web of one rail 1 and bolts 21 are passed through said members and web, clamping nuts 22 being engaged upon the bolts to firmly hold the members united with said rail.

It will be observed that the rib 13 is spaced from the head of the rail 1, as at 23, in order to accommodate the flanges of the wheels of rolling stock passing thereover. The boss 7 is spaced from the head of the rail 1, as at 24, to permit passage of the wheel flanges when same travel along the rails 1.

The opposed ends of the treads 8 and 17 are spaced from the opposite sides of the rail 1, as at 25, in order that the wheel flanges can freely pass.

The treads 8 and 17 have their upper surfaces gradually inclined in a direction toward each other so that when a car is being switched upon the siding, the wheels upon one side, in this instance, the left hand side, will clear or pass freely over the rail 1 from the tread 8 to the tread 17, and reversely when the car is returned to the main rails, as clearly shown in Figure 2 of the drawings. As also shown in said Figure 2, the opposed ends of the treads are disposed above the plane of the head of the rail 1 in order that the wheels can freely pass over said rails. The lateral movement of the wheels will be limited by the shrouds 14 and 18. In this manner, the frog can be conveniently applied to a rail without the necessity of cutting or notching the same or placing the frog between the butt ends of rails.

From the foregoing, it is thought that the operation and many advantages of the herein described invention will be apparent to those skilled in the art without further description and it will be understood that various changes in the size, shape, proportion, and minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

What is claimed is:

1. The combination with a main rail, of a frog consisting of a pair of members, means for securing the members upon opposite sides of the rail, said members each including a substantially triangular section having an elongated block section connected therewith, each section having a tread inclined upwardly to a plane above the rail, and a shroud carried by each section.
2. The combination with a main rail, of a frog consisting of members, means for securing the members upon opposite sides of the rail, each member including a substantially triangular section and an integrally connected elongated block section, treads carried by each section and having their opposed ends disposed upon opposite sides of the rail, said treads having their upper surfaces inclined in a direction toward the rail to provide portions above the plane of the rail, and a tapered boss carried by one triangular section and disposed between the rail and associated treads.
3. The combination with a main rail, of a frog consisting of a pair of members, means for securing the members upon opposite sides of the rail, each member including a substantially triangular section and an elongated block section, each section having formed integral therewith a tread, the opposed ends of the treads being spaced from the main rail, said treads being inclined upwardly in a direction toward the rail and having their upper surfaces disposed in a plane above the rail, and shrouds carried by the opposed ends of the treads.
4. The combination with a main rail, of a frog including a pair of members for attachment upon opposite sides of the rail, each member including a triangular section and an elongated block section, each section having a tread carried thereby and disposed in angular relation with respect to the rail, and shrouds carried by said treads.
5. The combination with a main rail, of a frog including a pair of members, means for securing the members upon opposite sides of the rail, each member including a section having a tread carried thereby, said treads having their upper surfaces inclined in a direction toward each other whereby the upper surfaces of the treads will be disposed in a plane above the rail, and shrouds carried by the opposed ends of the treads.

In testimony whereof I affix my signature.
JOE LAVELLE. [L. s.]