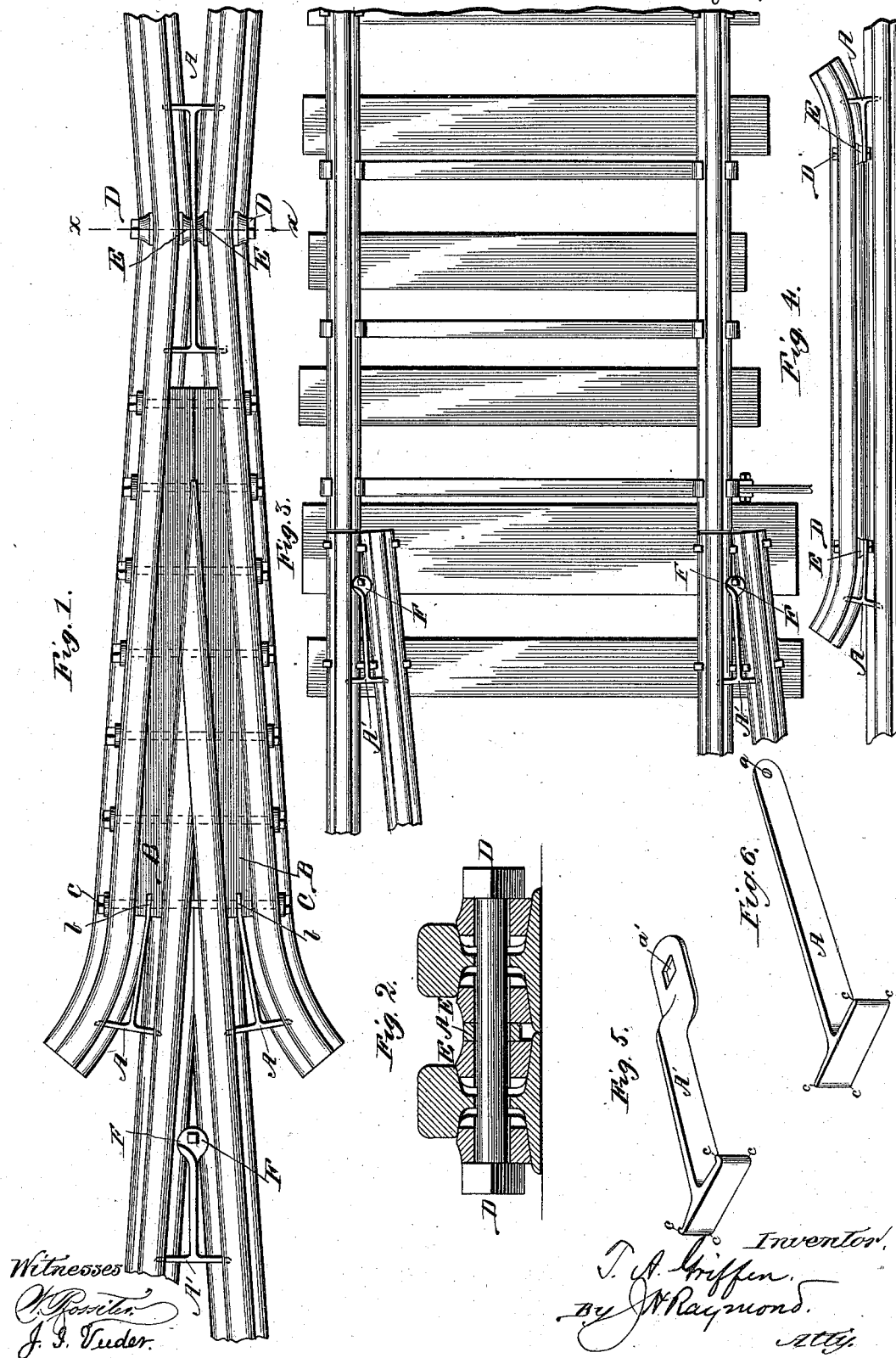


(No Model.)

T. A. GRIFFIN.
FOOT GUARD FOR RAILWAYS.

No. 382,083.

Patented May 1, 1888.



UNITED STATES PATENT OFFICE.

THOMAS A. GRIFFIN, OF CHICAGO, ILLINOIS.

FOOT-GUARD FOR RAILWAYS.

SPECIFICATION forming part of Letters Patent No. 382,083, dated May 1, 1888.

Application filed October 29, 1887. Serial No. 253,735. (No model.)

To all whom it may concern:

Be it known that I, THOMAS A. GRIFFIN, of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Foot-Guards for Railways, of which the following is a full specification.

My invention is designed for application to railway-tracks at all points where there is danger of catching the foot, as at frogs, switches, and guard-rails.

My invention consists in the parts and combinations hereinafter described and claimed.

In the drawings, Figure 1 is a plan view of a frog having my improved foot-guard applied. Fig. 2 is a section on line *x x*, Fig. 1. Fig. 3 shows the foot-guard applied to a switch and Fig. 4 to a guard-rail. Figs. 5 and 6 are perspective views of the guard detached.

A, Fig. 6, shows the guard in its simplest form. It consists of a piece of wrought metal of a T shape, most easily and cheaply made from a short section of a T-rail, the stem being produced by drawing out the head and web of the rail-section, while its foot forms the end of the guard. A hole, *a*, is made in the other end to afford a place for fastening the guard.

To secure the guard in a frog slot, *b*, Fig. 1, is cut in the filling, so as to intersect the bolt C, and the end of the guard is inserted, so that the bolt C serves to keep it in place. At the other end of the frog two guards are used, their ends overlapping, and are held by a single bolt, D, passing through the guards and rails or through only one rail. Washers E E are placed between the rails and the guards to keep the latter in position.

By reference to the section, Fig. 2, it will be seen that the guard A has its upper surface about level with the under side of the head of the rail, being just low enough to allow the wheel-flanges to pass over it without touching.

The corners *c c c c* of the guard bear against the head and flange of the rail at their junction with the web, holding the guard securely in

place, so that the stem of the guard bisects with more or less accuracy the space between the rails, neither of the openings on each side of the stem being large enough to admit the foot.

The form of guard shown in Fig. 6 is adapted to be bolted to the rail or frog in the manner already described, and as further shown in Fig. 4; but I have devised a modification which may be secured without bolts, and hence without drilling the rails. This modification is shown in Fig. 5, and at A', Figs. 1 and 3.

The end of the stem of the T is given a quarter-twist, or is otherwise flattened, and a spike-hole punched in it, by which it may be fastened.

Among the advantages of this improved foot-guard are its cheapness and durability. Snow and ice accumulations, crush and destroy wooden or sheet-metal guards under the action of passing wheels; but this guard, being open below and presenting only an edge surface, offers no obstruction or resistance to water, snow, and ice.

The brace may be made out of cast or malleable iron or steel; but I consider rail-sections as preferable, being stronger and not more expensive.

I claim—

1. A foot-guard for railways, consisting of a T-shaped single piece of metal formed from a short section of rail by drawing out the head thereof to form the stem of the T, the flange thereof forming the head of the T, and the stem being pierced near its end for the reception of a bolt or other fastening.

2. A foot-guard for railways, consisting of a piece of T-shaped metal, its head constructed to rest upon the rails, and its stem being twisted or flattened at its end and provided with a spike-hole, substantially as described.

THOMAS A. GRIFFIN.

Witnesses:

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