

(No Model.)

M. RILEY.

GUARD FOR RAILWAY TRACKS AND SWITCHES.

No. 484,461.

Patented Oct. 18, 1892.

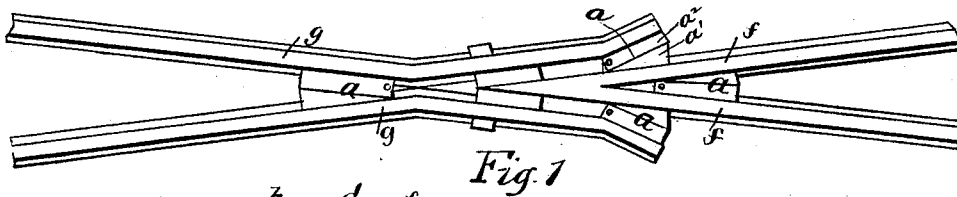


Fig. 1

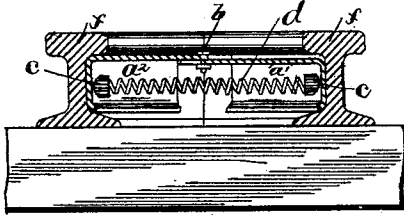


Fig. 2

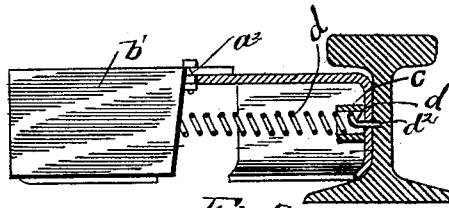


Fig. 3



Fig. 4

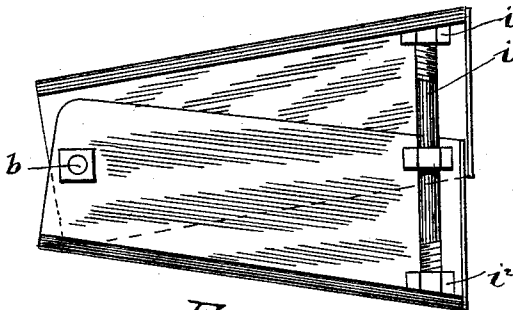


Fig. 6

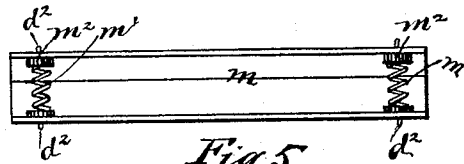


Fig. 5

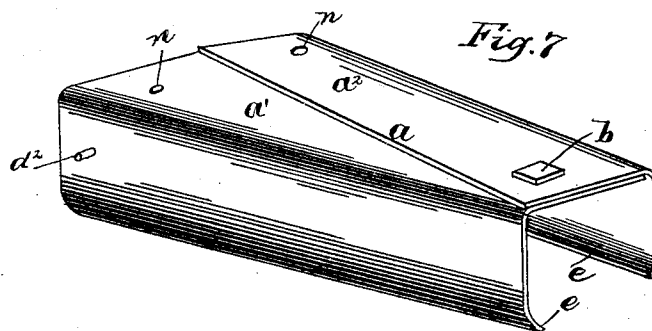


Fig. 7

Witnesses
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UNITED STATES PATENT OFFICE.

MICHAEL RILEY, OF LONDON, OHIO.

GUARD FOR RAILWAY TRACKS AND SWITCHES.

SPECIFICATION forming part of Letters Patent No. 484,461, dated October 18, 1892.

Application filed April 9, 1892. Serial No. 428,539. (No model.)

To all whom it may concern:

Be it known that I, MICHAEL RILEY, a citizen of the United States, residing at London, in the county of Madison and State of Ohio, have invented a certain new and useful Improvement in Guards for Railway Tracks and Switches, of which the following is a specification.

My invention relates to the improvement of guards for railway switches and frogs of that class which are adapted to fill the angles produced by converging rails.

The objects of my invention are to produce a guard of this class of superior construction and arrangement, to so construct the same as to block the angle formed by converging rails without the necessity of permanently securing the guard to said rails, to so construct said guard as to admit of the same being adjusted to fit in angles of different degrees, and to produce other improvements which will be more specifically pointed out hereinafter. These objects I accomplish in the manner illustrated in the accompanying drawings, in which—

Figure 1 is a plan view of a railway-frog, showing my improved guards in connection therewith. Fig. 2 is an end view of one of my improved guards shown in connection with the rails and showing the end pieces of the guard-plates broken away for the sake of clearness. Fig. 3 is a partial end view and partial transverse section of one of my improved guards, the section being taken through the plate-connecting spring. Fig. 4 is a plan view of a portion of the railway-rail and guard-rail with my improved guards intervening. Fig. 5 is a bottom view of the filling-piece which I employ between two parallel sections of the rails. Fig. 6 is an under side view of one of my improved guards, showing a modification in the manner of connecting the same; and Fig. 7 is a view in perspective of one of said guards.

Similar letters refer to similar parts throughout the several views.

a represents the body of my improved guard, which, as shown, is formed of two sections, (indicated at a' a^2 .) Each of these sections is preferably formed of comparatively-thin plate

or bar metal and consists of an oblong plate having a top, side, and one end piece, which are substantially at right angles with each other. As shown in the drawings, the top piece or upper plate of the section a^2 overlaps the corresponding top plate of the section a' , said overlapping top plates being pivotally connected or hinged at their inner ends by a suitable bolt or rivet b . The outer end of each of the sections a' a^2 is closed by a downturned end plate, (indicated at b' ,) one of said ends being adapted to telescope or pass within one side of the other.

c represents oppositely-located socket-lugs, one of which projects from the inner face of each side piece of the guard-sections a' a^2 near the outer end thereof. These socket-lugs form seats or bearings for the ends of a suitable coiled spring d , which serves to form a connection between the guard-sections. This spring d is of such length as to normally spread apart the outer portions of the guard-sections, and thus form substantially an angular guard-body. As shown at d^2 , each end of the spring d is extended through an opening in the guard side. As indicated at e , the lower edges of each of the side pieces of the guard-sections are curved inward.

The guard-body, formed as above described, is adapted, as shown in Fig. 1 of the drawings, to be inserted, pivot end first, into the angles formed by the converging rails f and g . In thus inserting said guards the upper sides thereof find a bearing against the under side of the track-rail head, while the lower inward turned edges of the guard-sections bear upon the inclined bases of the rails. From the construction shown it is evident that the tension of the spring d will, when said guards are driven inward, as described, serve to firmly press the side pieces of the guard-sections against the webs of the rails, and thus retain the guards in their position. In order to further insure the guards in their positions against the rails, I allow the spring extensions d^2 to spring into suitable sockets formed in the rail-webs. From this construction it will readily be seen that the spring-contact of the guards and rails will result in said guard-sections conforming to any movement of the rails from

whatever cause produced. It will also be seen that the spring-pressure thus imparted to the guard-sections will obviate any necessity of forming a connection between said sections and rails.

5 If desired to produce a rigid and adjustable connection between the guards and rails, I may, as shown in Fig. 6 of the drawings, substitute for the spring d an adjusting-screw
10 or double-screw bolt i , the ends of which are provided, respectively, with right and left hand threads which engage with the internal threads of nut projections i^2 on the inner
15 sides of the guard-sections. It is evident that in the use of the screw-bolt said sections of the guards may be forced outward or inward by turning said screw and that said guard-sections may thus be adjusted to fit in the
20 desired rail-angle.

20 In order to properly fill the space between the parallel portions of a track-rail and guide-rail, which are indicated at $k k'$ in Fig. 4, I provide a two-section filling-piece m , each
25 section consisting of an integrally-formed top and side piece extending at right angles with each other. These side pieces may be connected by transverse springs m' , the ends of which bear in suitable socket-pieces m^2 , which

project from the inner sides of the sections of the filling-piece m .

30 As shown at n , I may provide in each of the top plates of the guard-sections an opening, said openings admitting of the engagement therewith of any desired tool for drawing together the guard-sections and admit-
35 ting of the ready withdrawal of the guards from the rail-angles.

It will be evident from the construction shown and described that a neat, effective, and durable guard is formed, which may be
40 produced at a low cost of manufacture.

Having now fully described my invention, what I claim, and desire to secure by Letters Patent, is—

45 In a guard for railway-tracks, the combination of the oblong angular overlapping plates $a' a^2$, jointedly connected at their inner ends, as described, and a spring d , connecting the inner faces of the side pieces of said guard-sections, substantially as and for the purpose
50 specified.

MICHAEL RILEY.

In presence of—

THOS. S. GATES,
EMILY E. BRAGG.