

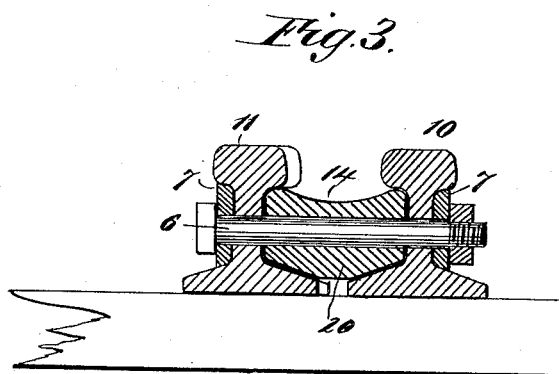
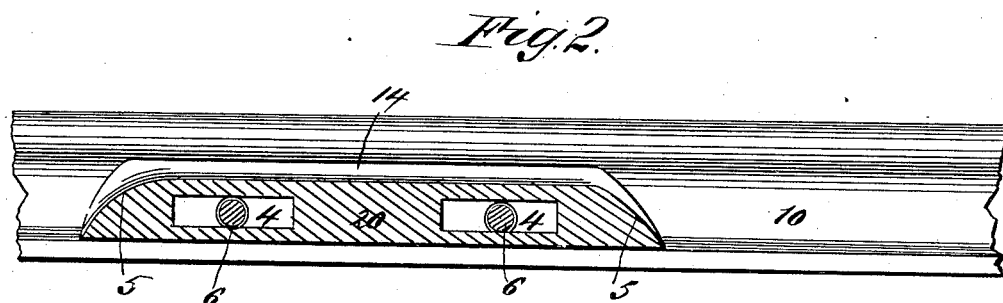
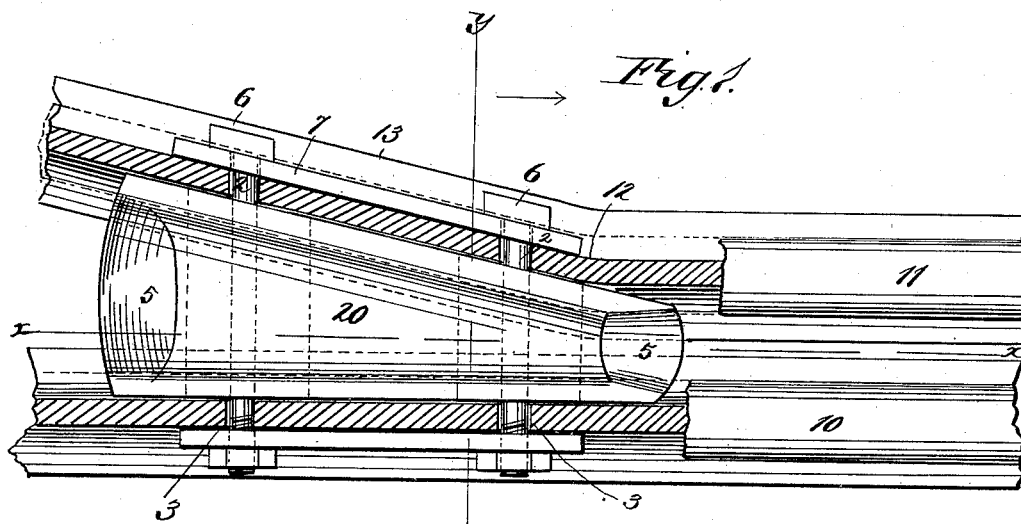
(No Model.)

E. J. MOORE & A. R. PAULUS.

FASTENING BLOCK FOR GUARD RAILS, SWITCH RAILS, OR FROGS.

No. 385,472.

Patented July 3, 1888.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

ETHELBERT J. MOORE AND AARON R. PAULUS, OF VILLISCA, IOWA.

FASTENING-BLOCK FOR GUARD-RAILS, SWITCH-RAILS, OR FROGS.

SPECIFICATION forming part of Letters Patent No. 385,472, dated July 3, 1888.

Application filed February 3, 1888. Serial No. 262,892. (No model.)

*To all whom it may concern:*

Be it known that we, ETHELBERT J. MOORE and AARON R. PAULUS, of Villisca, in the county of Montgomery and State of Iowa, have invented a new and Improved Fastening-Block for Guard-Rails, Switch-Rails, or Frogs, of which the following is a full, clear, and exact description.

This invention relates to a spacing and fastening attachment for guard-rails, switch-rails, or frogs, the invention, however, being designed more especially for use in the fastening of guard-rails to the rails of the main track, the invention consisting in the construction and arrangement of parts, as will be hereinafter more fully described, and specifically pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures of reference indicate corresponding parts in all the views.

Figure 1 is a view of one end of a guard-rail, representing the same as it appears when clamped to a main-line rail by means of our attachment, portions of the guard-rail and the main-line rail being shown in section. Fig. 2 is a longitudinal sectional view of the attachment, the view being taken on line *xx* of Fig. 1; and Fig. 3 is a cross-sectional view taken on line *yy* of Fig. 1.

In the drawings, 10 represents the main-line rail, and 11 the guard-rail, the end of which is bent at 12, so as to extend at an angle from the rail 10, the web of this angular section 13 being apertured at 2 2, corresponding apertures, 3 3, being formed in the web of the main rail 10 opposite the apertures 2.

Between the section 13 and the web of the rail 10 there is placed a block, 20, formed with two or more transverse elongated slots, 4, which register with the apertures 2 and 3. The side edges of the block 20 are formed so as to fit closely against the webs of the rail 10 and the web of the section 13 of the rail 11. The upper face, 14, of the block is concave, while the lower face is of proper contour to fit snugly

upon the upper faces of the rail-bases. Each end of the block is rounded off, as shown at 5, as will be seen from the construction illustrated in Fig. 1.

In applying, the block is placed as illustrated, and bolts 6 are passed through the apertures 2, 4, and 3, fish-plates 7 being placed between the outer faces of the rail-webs and the bolt-heads and nuts, as illustrated.

With such an attachment as the one above described we are able to clamp the guard-rail firmly to the main-line rail, and at the same time we are able to regulate the space between the approaching faces of the rail-treads, so that if the guard-rail tread becomes worn away it may be moved up closely to the main-line rail by simply loosening the nuts of the bolts 6 and moving the block 20 outward.

One of the greatest advantages arising from the use of our attachment is that it will be impossible for pedestrians to catch their feet in the jaw formed by the angular section 13 and the rail 10.

Having thus fully described our invention, we claim as new and desire to secure by Letters Patent—

1. A railroad-rail-guard fastening consisting, essentially, of a block formed with an inclined side face, a concave upper face, and elongated transverse slots, substantially as described.

2. The combination, with a main-line rail, of a guard rail formed with an angular section, a block, 20, having a straight face next to the main-line rail, an inclined face next to the angular section of the guard-rail, formed with transverse slots 4, and bolts 6, which pass through apertures formed in the rail-webs and through the apertures of the block, substantially as described.

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