No. 809,487. PATENTED JAN. 9, 1906.

T. L. BRENNAN.

RAILWAY FROG.

APPLICATION FILED OCT. 13, 1905.

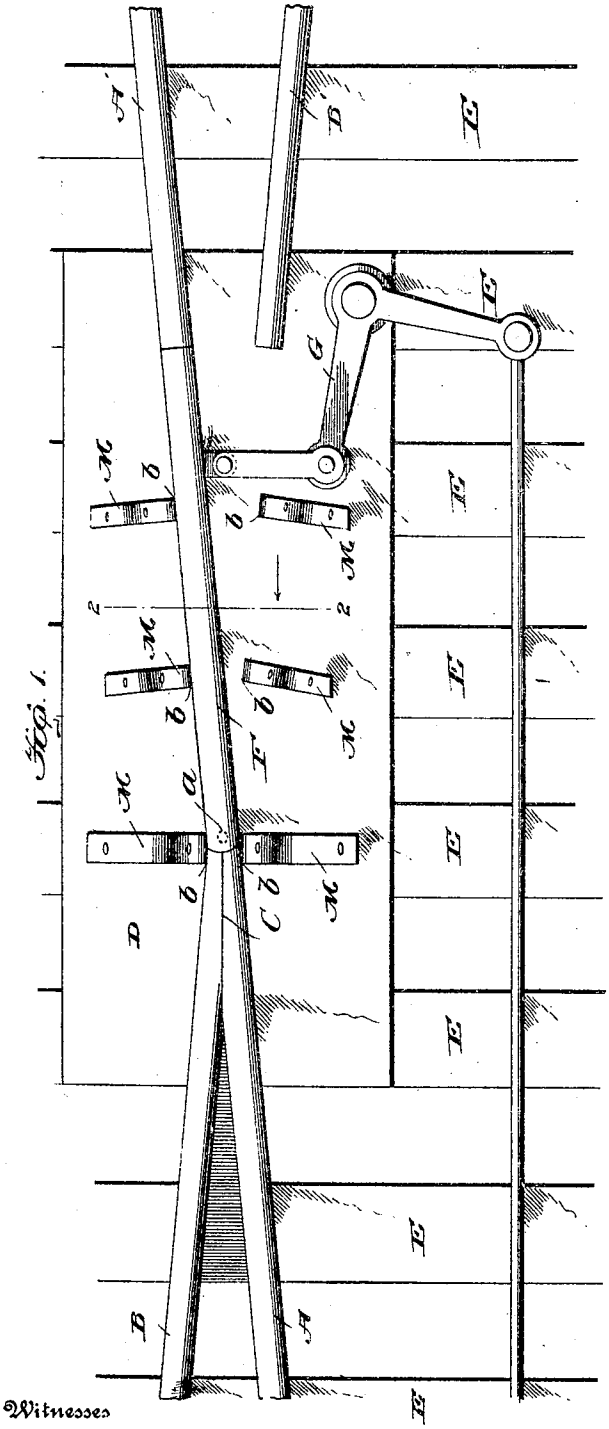

Fig. 1.

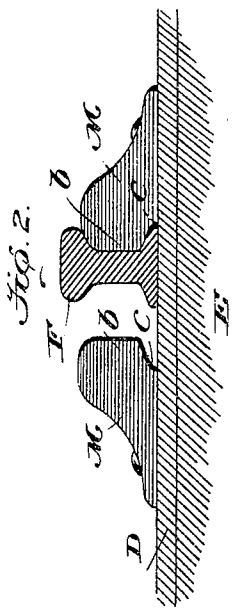

Fig. 2.

Witnesses

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RAILWAY-FROG.

No. 809,487. Specification of Letters Patent. Patented Jan. 9, 1906.

Application filed October 13, 1905. Serial No. 282,581.

To all whom it may concern:

Be it known that I, THOMAS L. BRENNAN, a citizen of the United States, residing at Deward, in the county of Crawford and State of Michigan, have invented new and useful Improvements in Railway-Frogs, of which the following is a specification.

My invention pertains to railway-frogs, more particularly railway-frogs having movable points and constructed with a view of making a continuous rail; and it consists in the peculiar and advantageous construction hereinafter described, and particularly pointed out in the claim appended.

In the accompanying drawings, forming part of this specification, Figure 1 is a plan view of so much of a railway as is necessary to illustrate the application of the construction constituting the present and preferred embodiment of my invention. Fig. 2 is an enlarged detail section taken in the plane indicated by the line 2 2 of Fig. 1 looking in the direction indicated by arrow.

Similar letters designate corresponding parts in all of the views of the drawings, referring to which—

A A′ are the main-track rails, and B B′ the siding-rails, of a railway. The rails A and B are brought together at C and fixed with respect to each other in any approved manner, while the adjacent ends of the rails A′ and B′ are arranged a slight distance apart.

D is a bed-plate, preferably of heavy steel, interposed between the rails A A′ B B′ and sleepers or ties E and suitably secured in position, and F is a horizontally-swinging point pivoted at *a* to the bed-plate and resting and adapted to move on the same. The heel of the said point F is convex and is disposed in a concave seat at the terminus of the rails A and B, as shown, whereby it will be seen that the point constitutes a continuation of said rails.

Any means compatible with the purposes of my invention may be employed to move the point F in a horizontal plane and hold the same in the positions in which it is placed without involving a departure from the scope of my invention. I prefer, however, to transmit motion to and hold the point F against casual movement through the medium of a horizontal bell-crank G, one arm of which is linked to the point, while the other arm is adapted to be connected with any suitable switch-operating device, which forms no part of my invention and is therefore not illustrated.

By virtue of the relative arrangement of the parts thus described it will be observed that the swinging point F, which is of the shape in cross-section of an ordinary rail, is adapted to give a solid and level route from either one of one pair of rails to either one of the other pair, also that the arrangement of the rails and movable point on the bed-plate of heavy steel will prevent expansion and contraction of the track from causing the movable point to bind or otherwise not work freely and properly.

With a view of bracing the point F when the same is alined with either of the rails A′ B′, enabling the said point to withstand the lateral pressure and strain to which it is subjected during the passage of a train I employ the braces M, which are spiked or otherwise connected to the bed-plate D and are arranged in sets at opposite sides of the point F, one set being arranged to coöperate with the point when the same is alined with the rail A′ and the other set when the point is alined with the rail B′. The braces M are identical in construction, and therefore a detailed description of one of those shown in Fig. 2 will suffice to impart a definite understanding of all. The said brace M has its inner end *b* shaped to fully occupy the space between the head and the base of the rail-shaped point, and it is provided in the lower portion of said end with a recess *c*, shaped to snugly receive the base of the rail-shaped point. From this it follows that the said braces M, in addition to holding the point F against lateral deflection when the same is alined with either of the rails A′ B′, are adapted to support the head of said point and effectually prevent casual upward movement thereof. This obviously contributes materially to the solidity, strength, and evenness of the connection which the point is adapted to effect between either of the rails A B and either of the rails A′ B′ and assures the free end of the point resting perfectly flush with the abutting end of the rail with which it is alined.

In addition to the practical advantages hereinbefore ascribed to my novel frog it will be apparent that the same is simple and inexpensive in construction and is well adapted to withstand the rough usage to which railway-frogs and the like are ordinarily subjected.

I claim—

The herein-described railway-frog, comprising sleepers or ties, the smooth bed-plate D superposed on the sleepers or ties, the rails A and B arranged on the plate D, and having their adjacent end portions reduced and brought together and fixed with respect to each other and also having a concave seat at their terminus, rails A′ and B′ having their ends arranged a slight distance apart and on the plate D, the horizontally-swinging point pivoted to the plate D adjacent to the terminus of rails A and B and having a head, a base and a web interposed between the head and base and also having a convex heel disposed in the said concave seat, and sets of braces arranged on and fixed to the plate D and disposed at opposite sides of the point; said braces having their inner ends shaped to snugly occupy the space between the head and base of the point.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

THOMAS L. BRENNAN.

Witnesses:

THEODORE P. KASPER,

HENRY BEDORE.