

H. FITZSIMMONS.

Improvement in Railroad-Switches.

No. 129,328.

Patented July 16, 1872.

Fig: 1

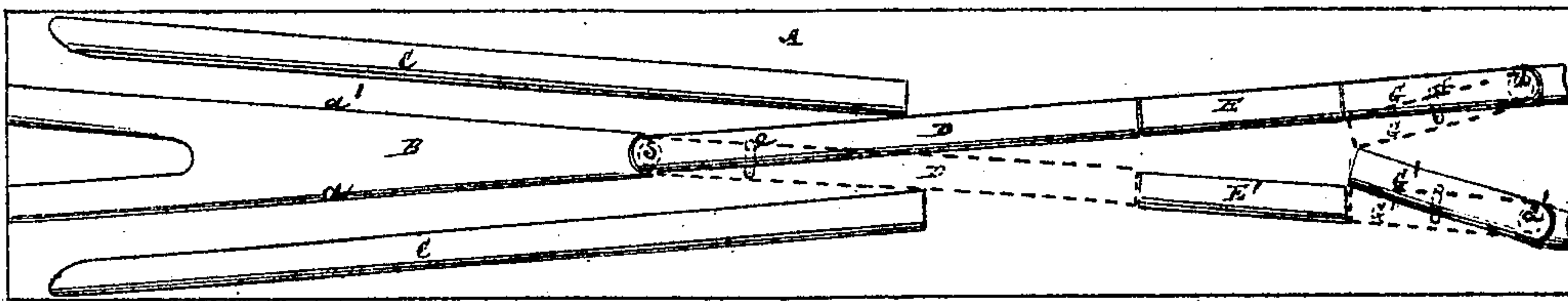


Fig: 2

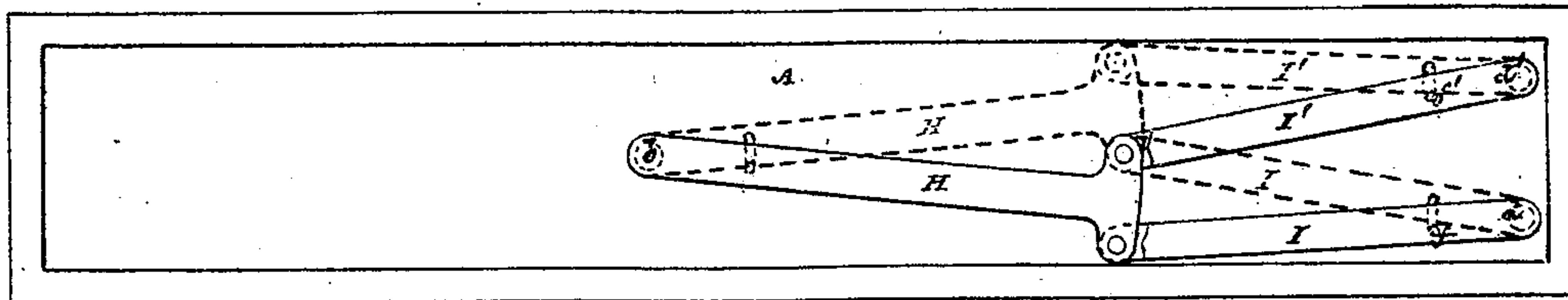
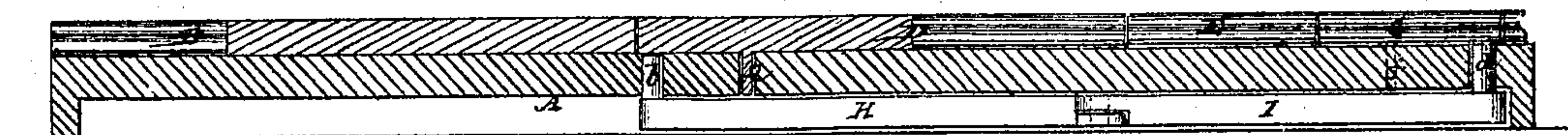


Fig: 3



Witnesses:

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UNITED STATES PATENT OFFICE.

HENRY FITZSIMMONS, OF HOUSTON, TEXAS, ASSIGNOR TO HIMSELF AND J. W. McDONALD, OF SAME PLACE.

IMPROVEMENT IN RAILROAD-SWITCHES.

Specification forming part of Letters Patent No. 129,328, dated July 16, 1872.

Specification describing an Improvement in Railroad-Frogs, the invention of HENRY FITZSIMMONS, of Houston, in the county of Harris and State of Texas.

This invention consists in a frog mounted on a cast or other metal plate, and provided with pivoted rails or rail-sections, arranged for operation in connection with fixed rail-sections upon the plate, to form a continuity with either line of main rail, and connected below the plate by pivoted bars or levers, to secure a relative action or adjustment of the pivoted or movable rail-sections, whereby a very perfect and simple frog operating to prevent break in the main line or lines is obtained, and which is capable of being adjusted by passing trains in opposite directions of travel.

In the accompanying drawing, which forms a part of this specification, Figure 1 represents a top view or plan of my improvement; Fig. 2, an under view of the same; and Fig. 3, a vertical longitudinal section thereof.

Similar letters of reference indicate corresponding parts throughout the several figures of the drawing.

A is a cast-iron plate, recessed on its under side or face. B is the main stationary portion of the frog, or, as it may be termed, the frog proper, mounted on or secured to the upper face of the plate A, and the sides of which correspond with the main rails of the line or one rail of each intersecting track. C C are guard-rails. D is a movable rail pivoted immediately in front of the frog proper, B, as at *b*, and forming a laterally-adjustable extension of the point of said frog. This movable rail or point-extension D of the frog closes connection at its free end according to the direction in which it is swung, with one or other of two fixed rail-sections, E E', that form broken or detached extensions of the one rail of each intersecting track, corresponding respectively with the sides *a a'* of the stationary portion B of the frog. Beyond or in advance again of these stationary rail-sections E E' are two other movable or laterally-adjustable rail-sections,

G G', pivoted as at *d d'*, to the plate A, and made to close connection respectively, according to the direction in which they are swung, but only alternately, and never simultaneously with the opposite ends of the stationary rail-sections E E', to those with which the movable rail D connects. The pivoted ends of these movable rail-sections G G' are shaped to always maintain connection with the main rails, of which the sections E E' form detached extensions, and the several movable rails or rail-sections D and G G' are so geared or connected together below the plate A by arms or levers H I I', working from the same centers as said rail-sections, or attached to the same pivots, *b d d'*, that when the rail D connects with the stationary rail-section E, the movable rail-section G also connects therewith; and when the rail D connects with the stationary rail-section E', the movable rail-section G' connects with the last-named stationary rail-section. Pins *e f f'* passing through slots into the plate, also serve to establish connection between the rails or sections D G G', and the levers H I I' also act as stops to limit the throw of the movable rails or rail-sections, or any other suitable stops may be provided.

Figs. 1 and 2 show, by full and dotted lines, the movable rails or rail-sections and their connecting-levers in their two different or changed positions, as above referred to.

When the movable rails D and G or G' are in line with either stationary rail-section E or E', a perfect continuity is established of the one intersecting line of rail said stationary section E or E' forms part of, and the pivoted arrangement of such movable rails or rail-sections relatively to the stationary rail-sections E E', it will be perceived, is such that, should the proper connection establishing continuity not be made in advance of a passing train traveling in either direction, the engine of said train, acting against the movable rail D or one of the movable rail-sections G G', will adjust said rail D and rail-sections G or G' into line to make complete the continuity, the movement of any one of the movable rails or

rail-sections controlling the whole of them by reason of their connection through the arms or levers H I I'.

What is here claimed and desired to be secured by Letters Patent, is—

The combination, with the frog proper or stationary portion B of the movable rails or

rail-sections D G G', the connecting-arms or levers H I I', and the stationary rail-sections E E', substantially as specified.

HENRY FITZSIMMONS.

Witnesses:

V. DUTTON,
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