(No Model.)

H. C. CANNON & J. P. CANTY.

RAILWAY SWITCH.

No. 361,130. Patented Apr. 12, 1887.

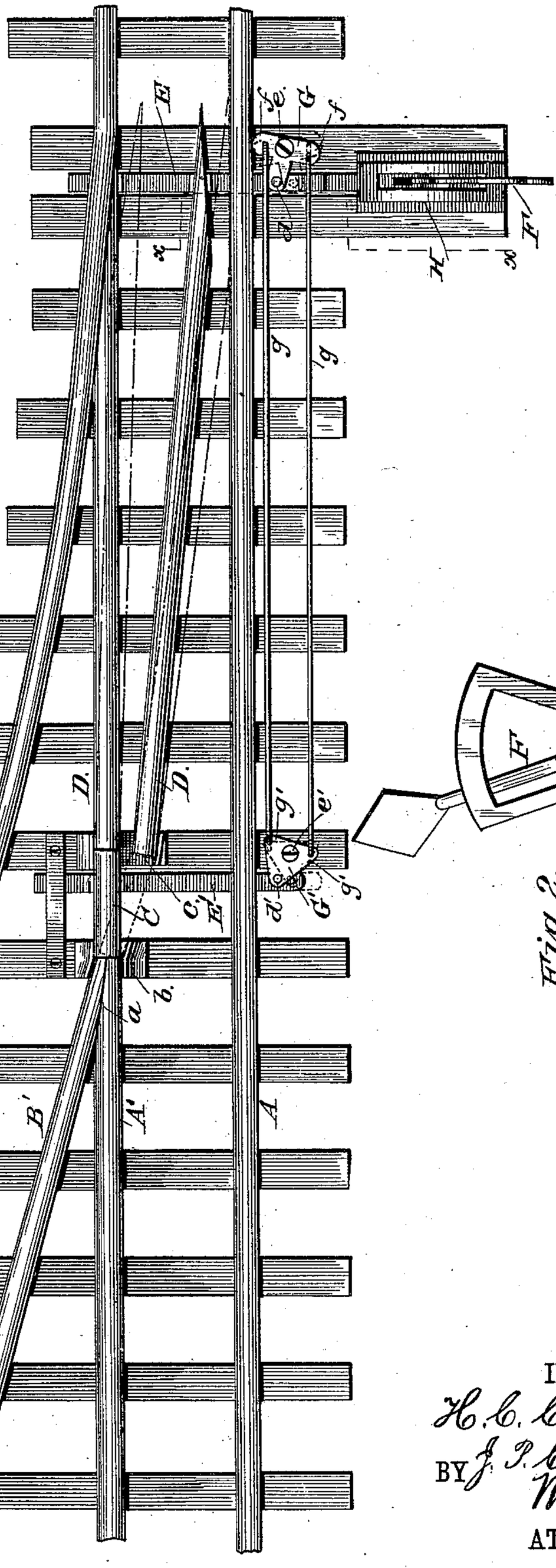

Fig. 1.

Fig. 2.

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HUGH C. CANNON AND JOSEPH P. CANTY, OF McARTHUR, OHIO.

RAILWAY-SWITCH.

SPECIFICATION forming part of Letters Patent No. 361,130, dated April 12, 1887.

Application filed July 15, 1886. Serial No. 208,136. (No model.)

To all whom it may concern:

Be it known that we, HUGH C. CANNON and JOSEPH P. CANTY, of McArthur, in the county of Vinton and State of Ohio, have invented a new and useful Improvement in Railway-Switches, of which the following is a specification.

Our invention relates to railroad-switches; and it consists in such peculiar construction and arrangement of parts as to produce an effective, reliable, and durable means for switching a train from one track to another without the use of frogs, and with the least danger of the cars jumping the track, which invention we will now proceed to describe with reference to the accompanying drawings, in which—

Figure 1 is a plan view; and Fig. 2 is a detail cross-section on line *x x*, Fig. 1.

A A′ represent the rails of the main track, and B B′ the rails of a side track. The inner rails, B′ and A′, of the two tracks terminate at their point of convergence *a*, and are tapered or planed and fitted together, so that the end corresponds about to the cross-section of a single rail. The outer rail A of the main track is a straight continuous rail, and the outer rail B of the side track is curved and continuous with or runs into the line of rail A′ of the main track. At the point *a*, where the two inner rails of each track converge, said rails rest in a chair, *b*, on one of the cross-ties, and upon the opposite side of this chair rests the end of a short movable rail, C, which is adjustable as a radius about the chair *b* as a center, so as to form a continuation of either the inner switch-rail or inner main rail, according to whichever position it occupies.

The outer or movable end of the rail-section C rests and plays upon a chair, *c*, which also sustains the converging and rigid ends of the spring-tongues D D, and the ends of which tongues alternately register with the movable section C, according to the position of the latter. The outer ends of the spring-tongues D D diverge and rest between the outer rails at a point where the side track joins the main track. The ends of these spring-tongues are tapered, and are adapted to be adjusted flat against the inside edge of either rail, so as to take the wheels of the cars off from or onto the same. These spring-tongues and the movable section of rail C have the following peculiar coaction: The tongues move together as one and the section C moves with them simultaneously, and both have a sort of radial motion, with the center of motion at one end and the arc of motion at the other—*i. e.*, the center of motion or stationary end of the spring-tongues is adjacent to the arc of motion or freely-moving end of the rail-section C.

In order to impart the lateral throw to the spring-tongues, the ends of the latter are mounted upon a subjacent rectilinearly-moving bar, E, whose outer end is jointed to the lower end of the vertical signal-lever F, fulcrumed in the upright frame H. This rectilinearly-moving bar is also jointed at *d* to a bell-crank lever, G, which is fulcrumed at *e* to one of the cross-ties, and has its opposite arms, *f f*, connected to pull-rods *g g*, which are connected to the opposite arms, *g′ g′*, of a similar bell-crank, G′, and which latter is fulcrumed at *e′* to the cross-tie, and is jointed at *d′* to the rectilinearly-moving slide-bar E′, which carries the outer end of the movable section of rail C. It will therefore be seen that the movement of the signal-lever F imparts the same throw to both the slide-bars E and E′, and also to the spring-tongues and movable section C. When these parts are adjusted to the position shown in full lines in Fig. 1, the main track is continuous and the side track is cut out; but when the parts are adjusted to the position indicated by the dotted lines the side track is made continuous with the main track for switching off from or onto the same.

We are aware that the several features of the radial rail-section C, spring-tongues D D, and elbow-cranks with pull-rods are not new, separately considered, and we only claim the same when combined and arranged as herein shown and described.

Having thus described our invention, what we claim as new is—

The combination, with rails A A′ and B B′, of the radially-swinging section C, arranged at the convergence of the inner rails, the divergent spring-tongues D D, having their stationary ends adjacent to the free end of section C, the slide-bars E E′, lever F, bell-cranks G G′, and pull-rods *g g′*, substantially as and for the purpose described.

The above specification of our invention signed by us in the presence of two subscribing witnesses.

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Witnesses:
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