

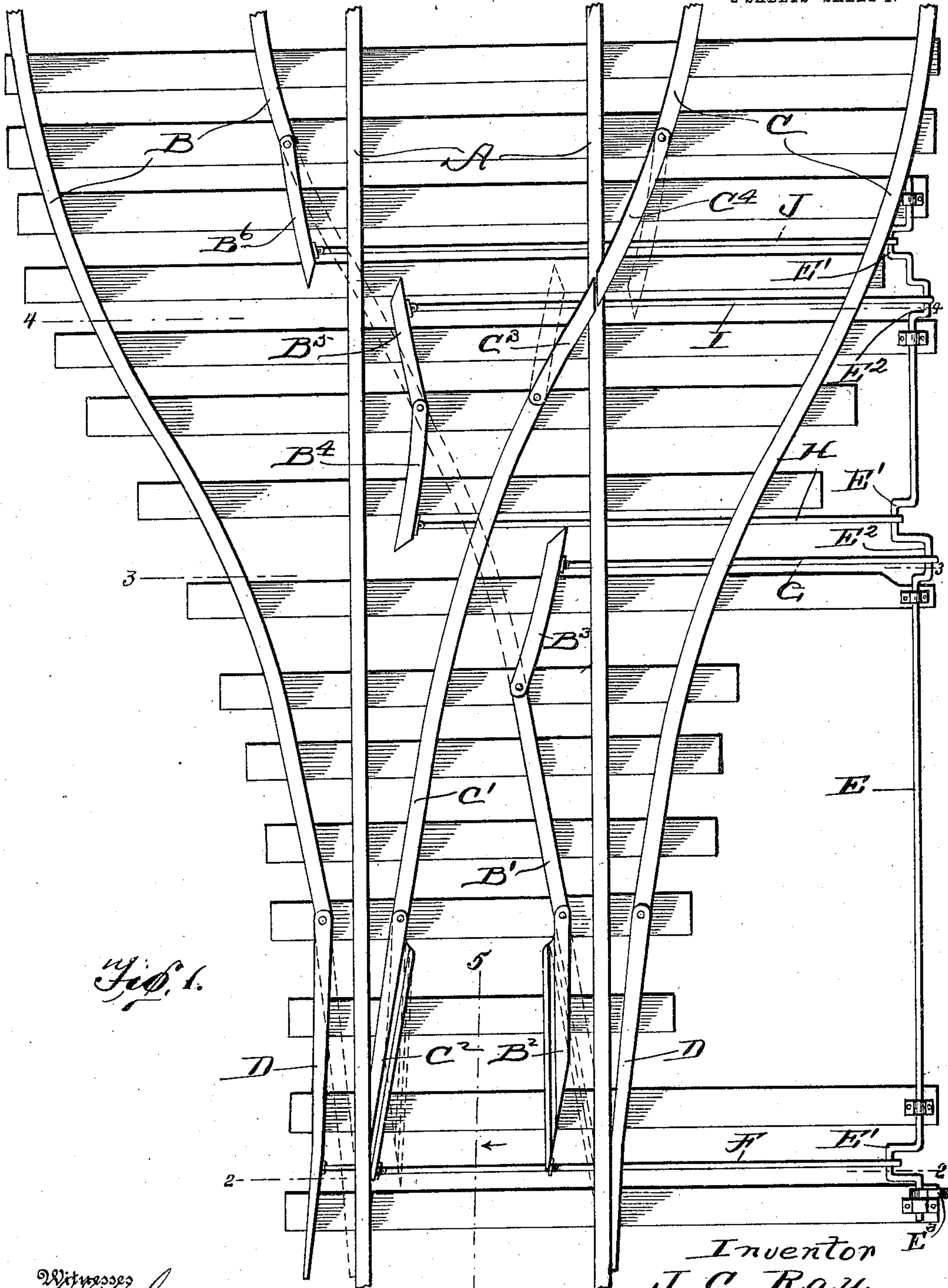
No. 846,863.

PATENTED MAR. 12, 1907.

J. C. RAY.
SWITCH.

APPLICATION FILED NOV. 21, 1905.

2 SHEETS—SHEET 1.



Witnesses
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5 34

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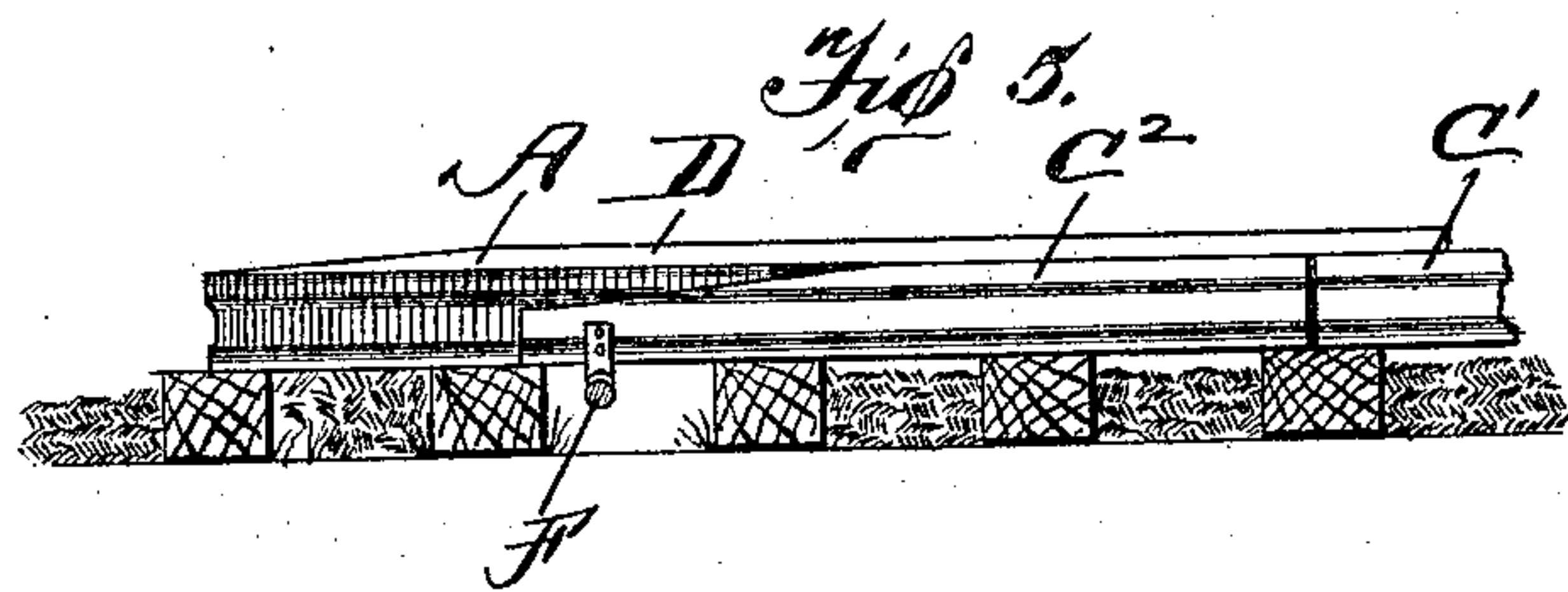
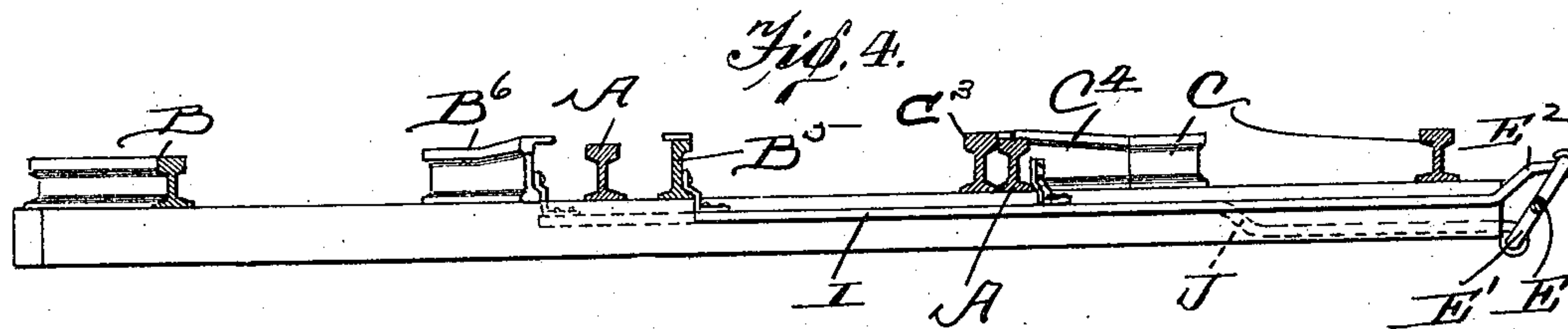
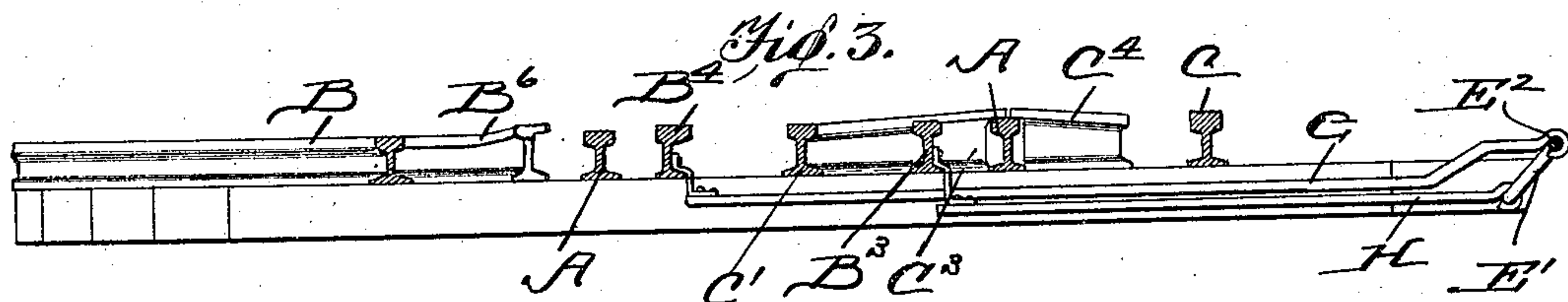
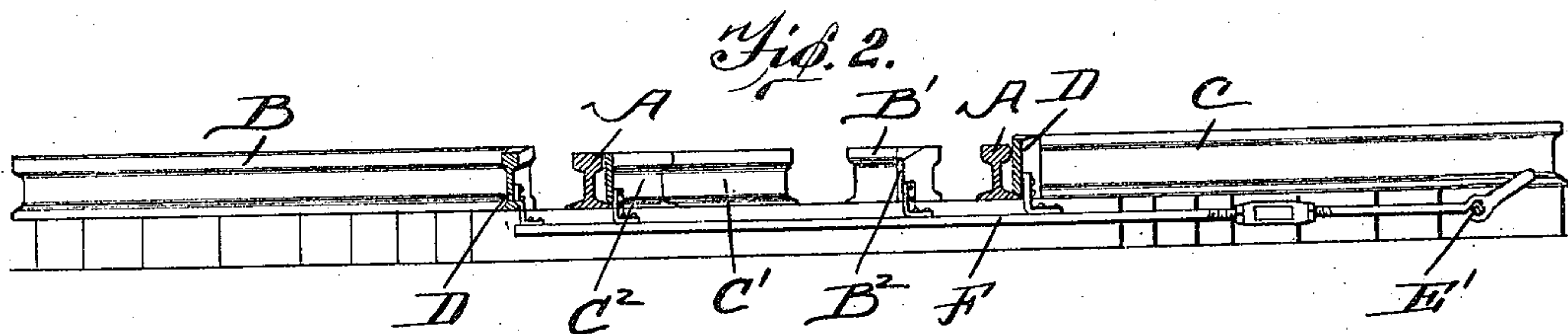
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2 SHEETS—SHEET 2.



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UNITED STATES PATENT OFFICE.

JOSEPH C. RAY, OF SELMER, TENNESSEE, ASSIGNOR OF ONE-HALF TO D. E. CARTER AND J. A. MOORE, OF SELMER, TENNESSEE.

SWITCH.

No. 846,863.

Specification of Letters Patent.

Patented March 12, 1907.

Application filed November 21, 1905. Serial No. 288,452.

To all whom it may concern:

Be it known that I, JOSEPH C. RAY, a citizen of the United States, residing at Selmer, in the county of McNairy and State of Tennessee, have invented a new and useful Improvement in a Switch, of which the following is a specification.

This invention relates to a railway-switch, and especially to switches leading upon opposite sides of the main track from the same point.

The object of this invention is to throw both switches from one lever, to provide a switch which it will be impossible for a train to enter unless the switch is properly set, and to provide a switch which will leave the main line entirely clear of frogs and moves or cuts in the main rails.

The invention consists in the novel features of construction hereinafter fully set forth, pointed out in the claim, and shown in the accompanying drawings, in which—

Figure 1 is a plan view illustrating my invention. Fig. 2 is a section on the line 2 2 of Fig. 1. Fig. 3 is a section on the line 3 3 of Fig. 1. Fig. 4 is a section on the line 4 4 of Fig. 1. Fig. 5 is a detail section on the line 5 5 of Fig. 1 looking toward the left.

In the drawings, A represents the rails of the main through track, B the rails of a siding upon one side of the main track, and C the rails of a siding upon the opposite sides of the track A. Between the rails A is placed a fixed crossover-rail C' and a shorter crossover-rail B', the fixed rail C' leading toward the siding C and the rail B' toward the left-hand siding B. The crossover-rail C' has pivoted to it a switch-point C², adapted to engage one of the rails A in the usual manner, and at the opposite end of the crossover-rail C' is pivoted a movable rail C³. The rail C³ at its free end overhangs the track-rail A opposite to the one engaged by the point C², the rail C³ being slightly higher than the rail A. A rail C⁴ is pivoted at one end to the inner rail C, and the opposite end also overhangs the rail A and engages the free end of the rail C³, the meeting ends of the rails C³ and C⁴ being properly beveled.

Track connections between the inner rail B and the crossover-rail B' is made by means of rails B³, B⁴, B⁵, and B⁶, all of which are pivoted and movable. The rail B³ is piv-

otally connected to the rail B', and the rails B⁴ and B⁵ are pivotally connected together. The free ends of the rails B³ and B⁴ are beveled to form meeting ends and are cut to overhang the rail C' at said ends.

The rail B⁶ is pivoted to the inner rail B, and the meeting ends of rails B⁵ and B⁶ are also beveled and cut to lap over or overhang the rail A, engaged by the switch-point C². A switch-point B² is also pivotally connected to the crossover-rail B', and suitable switch-points D are pivotally connected to the outer rails B and C. To actuate the above-mentioned points and pivoted rails, a rotatable rod E is arranged adjacent the track and is provided with three crank portions E' and two crank portions E², the latter extending in an opposite direction from the crank portions E'. To the first crank portion E' is pivotally connected an operating-rod F, and this rod is connected to the points D and also to the points B² and C². To the first crank portion E², counting from the switch-lever, is pivotally connected an operating-rod G, which is connected to the pivoted rail B³. To the second crank portion E' is pivotally connected a rod H, which is also connected to the pivoted rail B⁴. To the second crank portion E² is pivoted a rod I, which is also connected to the rail B⁵, and to the last crank portion E' is pivotally connected a rail J, which is connected to the movable rail B⁶. The rod E is operated by means of a suitable switch-lever E³. The outer rails B and C have their tread-surfaces in a higher plane than the main-track rails A, and the points D also rise gradually to this plane.

It will be obvious from the above description and drawing that when the lever E³ is held in an intermediate or perpendicular position the switches will both be opened, and the rails A of the main track will be cleared, and the wheels of a train traveling over will encounter nothing to indicate that a switch is being passed.

When the lever E³ is thrown to the right, the switch-point C² and the right-hand point D will be brought into engagement with the rails A and the movable rails C³ and C⁴ will be moved in opposite directions by the rods I and J, respectively, and as the rod I is also connected to the rail B⁵ this rail will be moved away from the rail A, and as the rod J is also connected to the rail B⁶ this rail will

be moved away from the rail A. It will therefore be impossible for a train to pass to the rails B, as there is no complete crossover to the left-hand siding. As the train enters
5 the siding at C the right-hand wheels will rise upon the right-hand point D and upon the outer rail C, and as the wheels upon the left-hand side approach the rail A for the purpose of crossing the same they will ride
10 upon the movable rail C³ and their flanges clear the rail A.

It will also be noted that the switch-points D are provided with straight end portions, which lie parallel to the track-rails A when
15 the switch they control is closed, so that the wheels striking the said points will rise and clear the rail A as they pass upon the angle portion of the points D.

It will also be obvious that by throwing
20 the switch-lever E³ out of a vertical position to the left the switch to the siding formed by the rails B will be closed, as indicated by the dotted lines.

Having thus fully described my invention, what I claim as new, and desire to secure by 25 Letters Patent, is—

The combination with through-track rails, a siding on each side of the track-rails, a crossover-rail leading to one siding and having a pivoted movable end portion adjacent 30 a track-rail, a pivoted crossover leading to the other siding and between the first-mentioned crossover-rail and the track-rail last mentioned, movable crossover-rails pivoted at their meeting ends and between the first- 35 mentioned crossover-rail and the remaining through rail, and leading to the second siding, and common means for simultaneously bringing into alinement the pivoted crossover-rails leading to the second siding and 40 opening the switch leading to the first-mentioned siding.

JOSEPH C. RAY.

Witnesses:

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