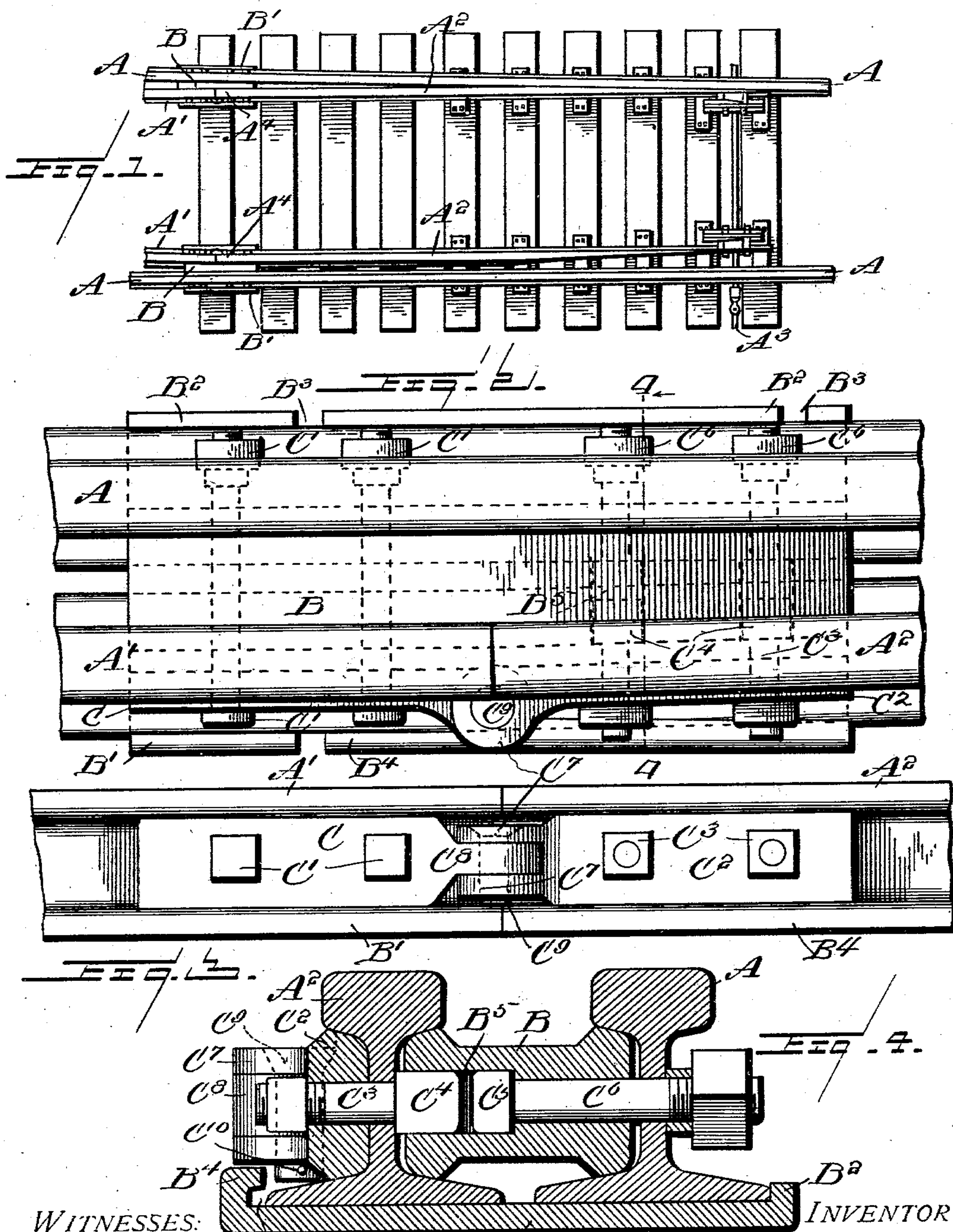


No. 740,839.

PATENTED OCT. 6, 1903.

W. A. FORT.
HINGED SWITCH JOINT.
APPLICATION FILED MAY 19, 1903.

NO MODEL.



WITNESSES:

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UNITED STATES PATENT OFFICE.

WILLIAM A. FORT, OF COLUMBIA, SOUTH CAROLINA.

HINGED SWITCH-JOINT.

SPECIFICATION forming part of Letters Patent No. 740,839, dated October 6, 1903.

Application filed May 19, 1903. Serial No. 157,805. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM A. FORT, a citizen of the United States, residing at Columbia, in the county of Richland, State of South Carolina, have invented certain new and useful Improvements in Hinged Switch-Joints, of which the following is a specification, reference being had therein to the accompanying drawings.

10 This invention relates to a hinged switch-joint, and particularly to improved means for pivotally mounting the switch-points.

The invention has for an object to provide a space-block extending between the main rail and movable switch-point upon which a rigid bearing may be secured for the point and means provided by which any longitudinal movement thereof is effectually prevented.

20 A further object of the invention is to provide an improved base-plate having a flanged edge adapted to be engaged by the base of the switch-point at its pivoted end to retain same against lateral and vertical movement.

25 Other and further objects and advantages of the invention will be hereinafter set forth and the novel features thereof defined by the appended claims.

30 In the drawings, Figure 1 is a plan showing the application of the present invention to a switch-joint. Fig. 2 is a similar view of the switch-joint upon an enlarged scale. Fig. 3 is a side elevation of the parts shown in Fig. 2, and Fig. 4 is an enlarged vertical section on the line 4-4 of Fig. 2.

Like letters of reference refer to like parts in the several figures of the drawings.

40 For the purpose of illustrating the application of the invention main or stock rails A are shown in Fig. 1 and lead-rails A', cooperating therewith and with the switch-points A², are illustrated in their operative relations, said points being adapted to be shifted or moved by any desired mechanism—for instance, the rod A³—while they are pivotally connected to the lead-rails at the opposite end A⁴ thereof. Between the main rail and the lead and switch rails a spacing-block B is provided, adapted to fill the space between 50 said rails, while beneath the same the base-plate B' extends, having at one side an upturned flange B², provided with suitable cut-

away portions B³ to receive the holding-spikes, while the opposite side of the plate is provided with an overturned flange B⁴, forming 55 a space or recess B⁵, adapted to receive the base of the switch-point A² as the same is shifted toward the edge of the plate. The switch-point A² is connected to the lead-rail by means of the hinge C, one leaf of which is 60 secured to the web of the lead-rail by means of bolts C', passing through the hinge-leaf, lead-rail, spacer-block, and main rail, as shown in Fig. 2, whereby all of the parts are firmly clamped in position and together. The opposite leaf C² of the hinge is secured to the 65 switch-point A² by means of bolts C³, extending through the switch-point and provided with heads C⁴, adapted to seat within the recesses B⁵ of the spacer-block B, which recesses also receive the head C⁵ of the bolt C⁶, 70 which extends through the main rail A, thereby securing the block at that end to said rail and permitting a free movement of the switch-point without withdrawing the head C⁴ of the 75 bolt C³ from the recess in the block. Each of these bolts is provided with the usual securing-nuts and washers, which are not specifically herein described. The hinge-leaves may be pivoted together in any desired manner— 80 for instance, by means of the perforated ears C⁷, carried by the leaf C², embracing the lug C⁸, carried by the opposite leaf, and a bolt or pivot C⁹, extended through these ears. This bolt may be held against removal by a cotter- 85 pin C¹⁰ at its lower end.

In the operation of the switch it will be seen that the point thereof is always free to move without applying any strain thereto nor to the lead-rail, which strain causes the 90 spikes to loosen for some distance behind the joint and renders the track dangerous. The block extending between the rails forms a firm bearing to hold the parts in positive alignment and also for the pivoting of the switch- 95 point, while the bolt-heads or projections carried by this point are seated within the recesses within the block, which effectually prevents any longitudinal movement of the switch-point even though the pivot thereof is 100 accidentally destroyed. This structure, in connection with the base-plate, forms a joint of special strength and one in which the parts are firmly held in their relative positions,

while the point is held against either vertical or lateral movement in its shifted position by means of the overturned edge of the base-plate.

5 It will be obvious that changes may be made in the details of construction and configuration without departing from the spirit of the invention as defined by the appended claims.

Having described my invention and set
10 forth its merits, what I claim, and desire to secure by Letters Patent, is—

1. In a switch-joint, a lead-rail, a main rail, a switch-point pivoted to said lead-rail at its point of connection therewith, and a spacing-
15 iron secured between the main rail and the lead-rail and extended parallel to the switch-point to form an abutment therefor.

2. In a switch-joint, a main rail, a lead-rail, a switch-point pivoted to said lead-rail, a spacing-block extended between the main rail and
20 the lead-rail and switch-point, and projections carried by the switch-point adapted to seat in recesses in said block.

3. In a switch-joint, a main rail, a lead-rail, a switch-point pivoted to said lead-rail, a spacing-block extended between the main rail and
25 the lead-rail and switch-point, projections carried by the switch-point adapted to seat in recesses in said block, and a base-plate beneath said rails provided with an overturned edge at the opposite side of the switch-point from the projections carried thereby.

4. In a switch-joint, a main rail, a lead-rail and switch-point carried thereby, a spacing-
35 block between said main and lead rails, a hinge having leaves extending upon the outer face of said lead-rail and switch-point, and securing-bolts for said hinge extending through the lead-rail, block and main rail.

5. In a switch-joint, a main rail, a lead-rail and switch-point carried thereby, a spacing-
40 block between said main and lead rails, a hinge having leaves extending upon the outer face of said lead-rail and switch-point, securing-bolts for said hinge extending through the lead-rail, block and main rail, a hinge-securing bolt carried by the switch-point and having an extended head adapted to seat in
45 a recess formed in said block, and a securing-bolt extending from the inner portion of
50 said recess through the main rail.

6. In a switch-joint, a main rail, a lead-rail and switch-point carried thereby, a spacing-block between said main and lead rails, a

hinge having leaves extending upon the outer
55 face of said lead-rail and switch-point, securing-bolts for said hinge extending through the lead-rail, block and main rail, a hinge-securing bolt carried by the switch-point and having an extended head adapted to seat in a
60 recess formed in said block, a securing-bolt extending from the inner portion of said recess through the main rail, and a base-plate extending beneath the joint and having its edge opposite the switch-point overturned to
65 form a recess to receive the base of said point.

7. In a switch-joint, a spacing-block secured in position and provided with a recess in one face thereof, a movable switch-point, and a projection upon the face of said point
70 extending into said recess and adapted to remain therein in the shifted positions of the point.

8. In a switch-joint, a spacing-block secured in position and provided with a recess
75 in one face thereof, a movable switch-point, a projection upon the face of said point extending into said recess and adapted to remain therein in the shifted positions of the point, and a base-plate at the opposite side
80 of the point from the projection adapted to receive the base of the point in its shifted position.

9. In a switch-joint, a main rail, a lead-rail, a movable switch-point pivoted at its end to
85 the lead-rail, a spacing-block extending between the main rail and the lead-rail and switch-point to form an abutment for the movement of the switch-point toward the main rail, and means upon the adjacent faces
90 of the block and point to prevent longitudinal movement of the switch-point.

10. In a switch-joint, a main rail, a lead-rail, a movable switch-point carried thereby, a spacing-block extending between the main
95 rail and the lead-rail and switch-point to form an abutment for the movement of the switch-point toward the main rail, means to prevent longitudinal movement of the switch-point, and a flange at the opposite side of the switch-
100 point from the spacing-block to limit the movement of said point away from said block.

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM A. FORT.

Witnesses:

J. P. DARBY,
G. F. BOYD.