

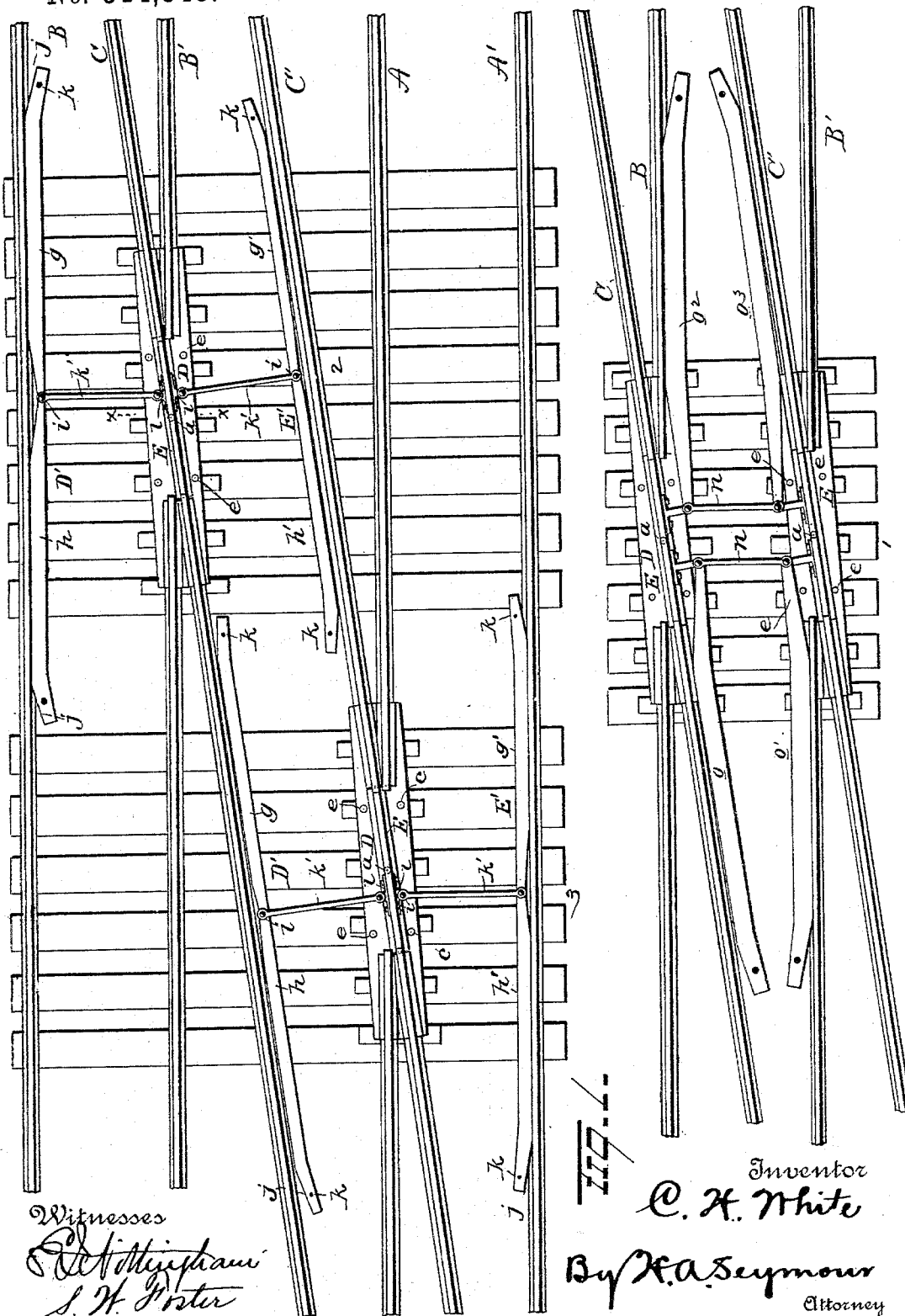
(No Model.)

2 Sheets—Sheet 1.

C. H. WHITE.
RAILROAD CROSSING.

No. 514,343.

Patented Feb. 6, 1894.



Witnesses

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Attorney

(No Model.)

2 Sheets—Sheet 2.

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FIG. 2.

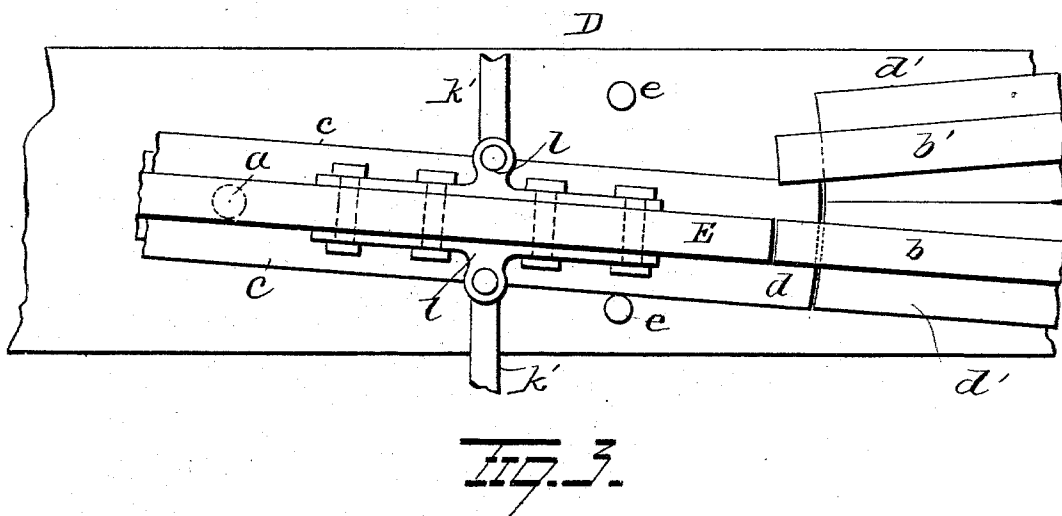
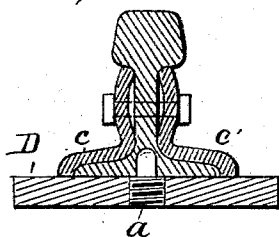


FIG. 3.

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UNITED STATES PATENT OFFICE.

CHARLES H. WHITE, OF STOUGHTON, MASSACHUSETTS, ASSIGNOR TO
ELIZABETH W. WHITE, OF SAME PLACE.

RAILROAD-CROSSING.

SPECIFICATION forming part of Letters Patent No. 514,343, dated February 6, 1894.

Application filed June 12, 1893. Serial No. 477,850. (No model.)

To all whom it may concern:

Be it known that I, CHARLES H. WHITE, a resident of Stoughton, in the county of Norfolk and State of Massachusetts, have invented certain new and useful Improvements in Railroad-Crossings; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to an improvement in railroad crossings, its object being to produce simple and efficient means whereby a pivoted rail section at the point of crossing of the rails can be automatically operated by the wheels of a car or locomotive to cause it to align with the track on which said car or locomotive is running.

A further object is to provide simple and efficient means whereby pivoted rail sections of a double crossing can be automatically and successively operated by the wheels of a passing train.

In the accompanying drawings, Figure 1 is a plan view of my improved construction, one part being a continuation of the other, one showing the invention as applied to a single rail of a track and the other to the two rails of a track, and Fig. 2 is a cross section on the line *xx* of Fig. 1. Fig. 3 is a detail view.

A, A', and B, B', represent the rails of parallel railroad tracks and C, C', represent the rails of a track crossing the rails A, A', and running into the rails B, B'. Bed plates D are located at the crossings of the rails and each bed plate provided at its center with a screw threaded socket or perforation for the reception of a hub or pin *a*, said hub or pin serving as a pivot for a short rail section E. The ends of the pivoted rail section E are adapted to align, alternately, with rigid rail sections *b, b'*, on the respective ends of the bed plate D, and said fixed rail sections align with the rails of the respective tracks.

In a double crossing, such as shown in the drawings, three crossings 1, 2, 3, are provided. At the crossings 2 and 3 the pivoted rail sections are located at the junction of the inner rails of the tracks, but at crossing 1, where both rails C, C' cross both rails B, B',—two

pivoted rail sections E are provided. The means for operating the pivoted rails E at the crossings 2 and 3 being the same in construction, a detailed description of one will suffice for both. Secured to the sides of the pivoted rail section E are angle irons *c, c'* adapted at their lower edges to remain in proximity to the bed plate D and prevent said pivoted rail section from leaving its seat. Similar angle irons *d'* are secured to the sides of the fixed rail sections *b, b'*. The pivoted rail section is provided at its ends with fillets *d*, as are also the ends of the angle irons *c, c'* said fillets being adapted to play in recesses made in the ends of the rigid rail sections *b, b'* and the angle irons *d'* secured thereto.

Projections or stops *e* are made on the bed plate D and are adapted to limit the movement of the pivoted rail section E and insure its proper alignment with the rigid rail sections *b, b'*. Located on the ties and in proximity to the inner side of the outer rails of the respective tracks, are shifting rails D', E', each comprising two sections *g, h*, and *g', h'* respectively, pivotally connected together, as at *i, i*. The ends of the shifting rails D', E', are preferably adapted to project inwardly somewhat and have beveled faces *j*, whereby to insure the entrance of a wheel of a car or locomotive between the main rails of the track and said shifting rails. The shifting rails are pivotally connected at their ends to ties of the road, by means of pins or posts *k*. At the jointed connections of the sections of the shifting rails, rods *k'* are pivotally connected and adapted to project inwardly toward the pivoted rail section E, said rods being pivotally connected to arms *l* secured to said pivoted rail section at one side of its pivot. From this construction and arrangement of parts it will be seen that when a train, running on one of the tracks, reaches the shifting rail in proximity thereto, the flanges of the wheels of the train will enter between said shifting rail and the rail of the track and force the jointed ends of the sections of the shifting rail away from the main rail. The pivoted rail section being connected with the shifting rail, it will therefore be shifted and made to align with the track on which the

train is running. When a train afterward passes over the other track, the flanges of the wheels will enter between the main rail and the shifting rail adjacent thereto and thus cause the pivoted rail section to be shifted back to its first position and in alignment with the track on which the train is now running.

The only difference between the crossings 2 and 3 is that in crossing 2 the rods k' are connected with the pivoted rail at one side of its fulcrum and in the crossing 3 said rods are connected to the pivoted rail at the opposite side of its fulcrum. At the crossing 1, where two pivoted rail sections E are provided, the two pivoted rail sections E are connected together at opposite sides of their fulcrums, by rods n . To each rod n , the inner ends of two shifting rails o, o' , and o^2, o^3 , respectively are pivotally connected. The shifting rails lie parallel with the respective rails B, B', C, C', and at their outer ends are pivoted to the ties, or brackets secured thereto. From this construction and arrangement of parts it will be seen that when a train passes over the crossing 1, the flanges of the wheels will enter between the rail of the track and one of the shifting rails, and cause both pivoted rail sections E of crossing 1, to properly operate to permit the passage of the train.

With the crossings constructed and arranged as above described, the pivoted rail sections will be automatically and effectually operated by the train regardless of the direction in which it is running. When a train is passing over the rails C, C', the crossings

1, 2, 3, will be automatically and successively operated.

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

1. In a railroad crossing, the combination with the two crossing tracks, and pivoted rail section at the point of intersection between rails, four shifting rails pivoted alongside the rails of the tracks whereby to receive the flange of a car wheel between them and the adjacent rails of the track in order to cause a shifting of the shifting rails, and rods connecting the free ends of the shifting rails with the pivoted rails, substantially as set forth.

2. In a railroad crossing, the combination with the rails of the track, and a pivoted rail section at the point of crossing thereof, of a shifting rail located in proximity to the outer rail of each track, both of said shifting rails being pivoted at their ends to ties of the road, and each made in two sections pivoted together, and rods connecting said shifting rails with the pivoted rail section, said rods being connected to the shifting rails in proximity to the junction of the sections thereof, substantially as set forth.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

CHARLES H. WHITE.

Witnesses:

ARTHUR L. HOLMES,
MATTHEW NALLY.