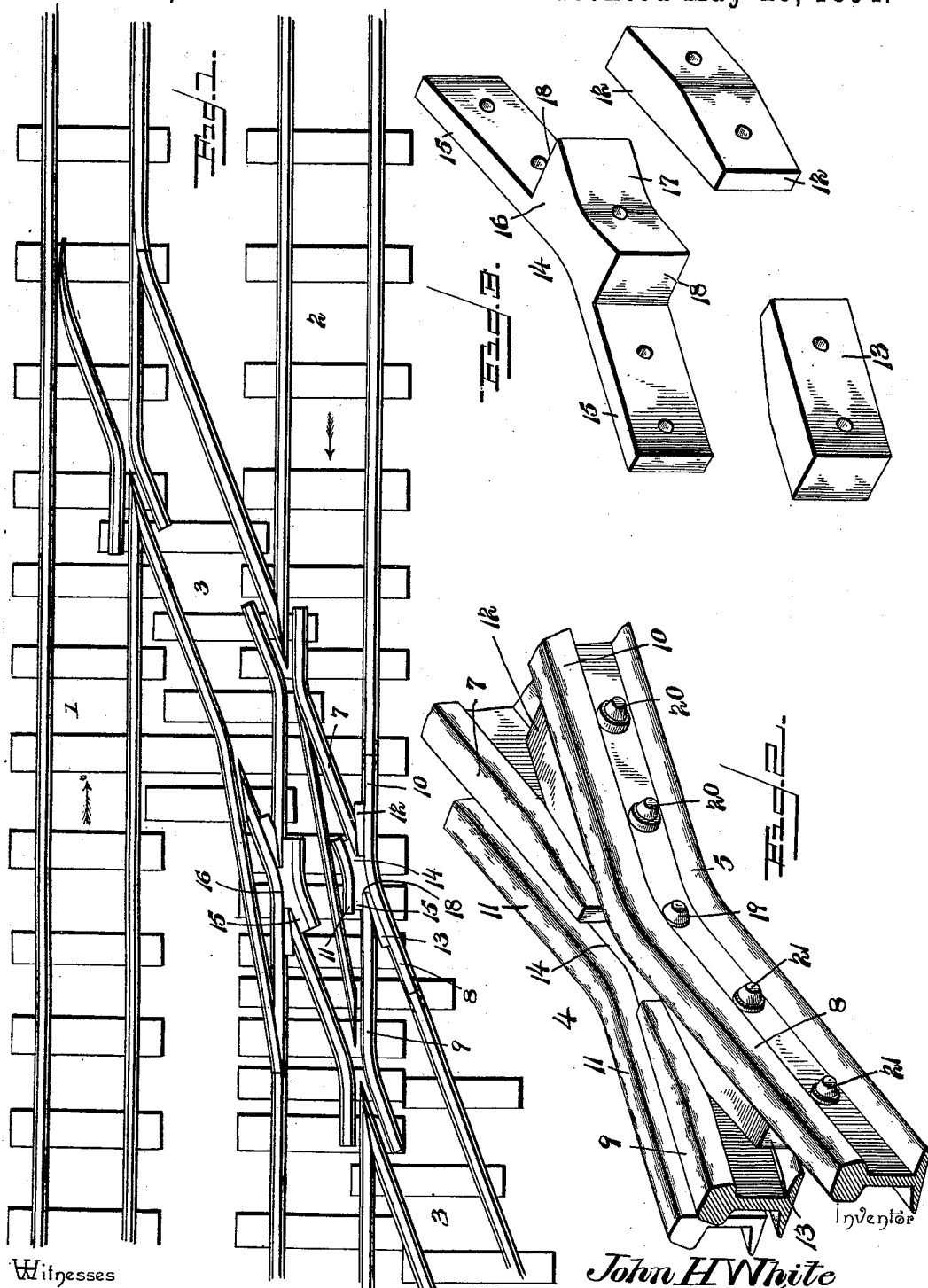


(No. Model.)

J. H. WHITE.
RAILWAY TRACK STRUCTURE.

No. 520,469.

Patented May 29, 1894.



Witnesses

E. H. Stewart

By *his* Attorneys,

John H. White

Chas. Snow & Co.

UNITED STATES PATENT OFFICE.

JOHN H. WHITE, OF DE WITT, IOWA.

RAILWAY-TRACK STRUCTURE.

SPECIFICATION forming part of Letters Patent No. 520,469, dated May 29, 1894.

Application filed February 13, 1894. Serial No. 500,014. (No model.)

To all whom it may concern:

Be it known that I, JOHN H. WHITE, a subject of the Queen of Great Britain, residing at De Witt, in the county of Clinton and State of Iowa, have invented a new and useful Railway-Track Structure, of which the following is a specification.

My invention relates to railway track structures, and it has for its object to provide an improved frog so constructed as to avoid the use of movable parts and provide for the rigid connection and bracing of the portions of rails comprising the frog.

Further objects and advantages of this invention will appear in the following description, and the novel features thereof will be particularly pointed out in the appended claims.

In the drawings: Figure 1 is a plan view of a railway crossing, showing a frog embodying my invention. Fig. 2 is a detail view in perspective of the improved frog. Fig. 3 is a detail view showing the filling blocks detached from the frog.

Similar numerals of reference indicate corresponding parts in all the figures of the drawings.

1 and 2 designate, respectively, the main line tracks, and 3 a cross track, and 4 represents the improved frog, which is arranged at the intersection of the cross-track rails with the main-track rails.

Referring to the frog, 5 represents an angular rail which is provided at its extremities with perforations to permit of bolting to a suitable fish-plate for connection to the main and cross track rails respectively; 7 represents a rail point, which is arranged in alignment with the arm 8 of said angular rail, this arm being arranged to form a part of the cross track; and 9 represents a rail point arranged in alignment with the arm 10 of the angular rail, said arm 10 being arranged to form a part of the main track rail.

11 represents an angular guard, the arms of which are disposed respectively parallel with the rail points 7 and 9.

Interposed between the extremity of the rail point 7 and the contiguous arm 10 of the angular rail, is a wedge-shaped block 12, and interposed between the extremities of the rail point 9 and the contiguous arm 8 of the an-

gular rail, is a similar wedge-shaped block 13. The rail points 7 and 9 terminate short of the angle of the angular rail to allow a space sufficient for the flange of a wheel to pass therebetween, and the blocks 12 and 13 terminate flush with the extremities of said rail points.

Interposed between the guard 11 and the contiguous portions of the rail points 7 and 9, is an angular filling block 14, having the angularly-disposed arms 15, which fill the spaces between the guard and the rail points. Said filling block is provided at its center with an enlargement 16, provided in one side with the angular cavity 17, for the reception of the angle of the rail 5, and terminating abruptly at its extremities to form the shoulders 18, against which the extremities of the rail points and wedge-blocks abut.

The above-described parts are connected and held in their proper relative positions by means of a series of bolts of which the central bolt 19 passes through the center of the enlargement 16, and the angles of the rail 5 and guard 11, the twin bolts 20 and 21, which are arranged in pairs, being passed through the arms of the rail 5 and of the guard, and also through the rail points and interposed portions of the filling block and wedge-blocks. When said bolts are tightened the several members comprising the frog are drawn firmly in contact, and are thus held from displacement by the wheels passing thereover. The perforations in the various members of the frog should be slightly elongated, as shown, to allow for expansion and contraction due to changes of temperature.

My invention is adapted especially for use in connection with a double-track structure in which it is necessary for a siding-track in order to reach and connect with a remote through line track to intersect a near or a number of intermediate through line tracks. For instance, if, as shown in the drawings Fig. 1, the upper or north track is used for travel in an easterly direction as shown by the arrow adjacent to track 1 and the south track 2 is used for travel in a westerly direction or in the direction indicated by the arrow adjacent thereto, the sliding track 3 in order to connect with the remote or north track so that trains may pass from the siding-track to the north track in the direction of travel

upon said north track, must intersect the near or south track at an acute angle.

Various changes in the form, proportion and the minor details of construction may be resorted to without departing from the spirit of the invention or sacrificing any of the advantages thereof.

Having described my invention, what I claim is—

10 1. A railway frog or similar track structure, having an angular rail adapted to be connected at its extremities to continuous track rails, rail points arranged respectively in alignment with the arms of said angular rail, an angular
15 guard having its arms disposed parallel with said rail points, wedge-blocks disposed respectively between the rail points and the contiguous arms of the angular rail, an angular filling block having its arms arranged
20 respectively between the arms of the guard and the contiguous rail points and provided with a central enlargement constructed to fit the angle of the angular rail and terminating abruptly to form shoulders against which the
25 terminals of the rail points and wedge blocks abut, and retaining bolts extending through perforations in said members to hold them in operative relation, substantially as specified.

2. In a railway track structure, the combination with double tracks adapted for travel 30 in opposite directions, and a siding track intersecting one of the tracks at an acute angle and connected to the other or remote track to convey trains from the siding to the said remotetrack, of a frog having one of its mem- 35 bers consisting of an angular rail connected at its extremities respectively to a rail of the intersected main track and a rail of the siding track, rail-points arranged respectively in alignment with the arms of said angular rail 40 and forming respectively a part of the main track and a part of the siding track, an angular guard having its arms disposed parallel with said rail points, wedge and filling blocks interposed between the angular rail points 45 and guard to hold the latter at the required intervals, and means for securing the parts together, substantially as specified.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in 50 the presence of two witnesses.

JOHN H. WHITE.

Witnesses:

W. A. COTTON,
W. H. SCHLABACH.