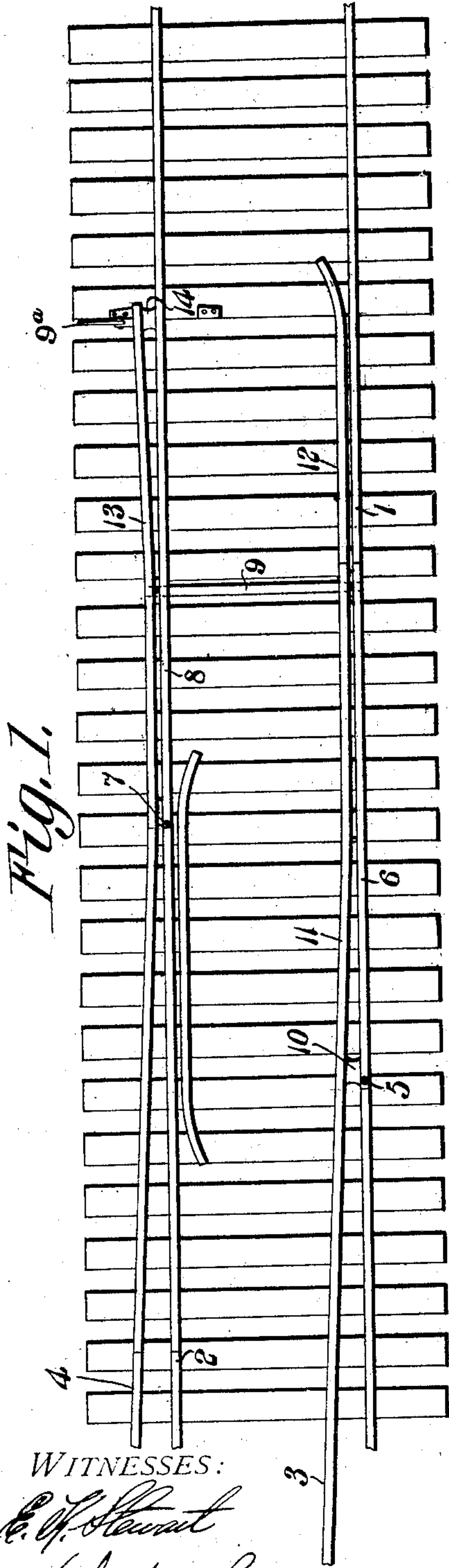


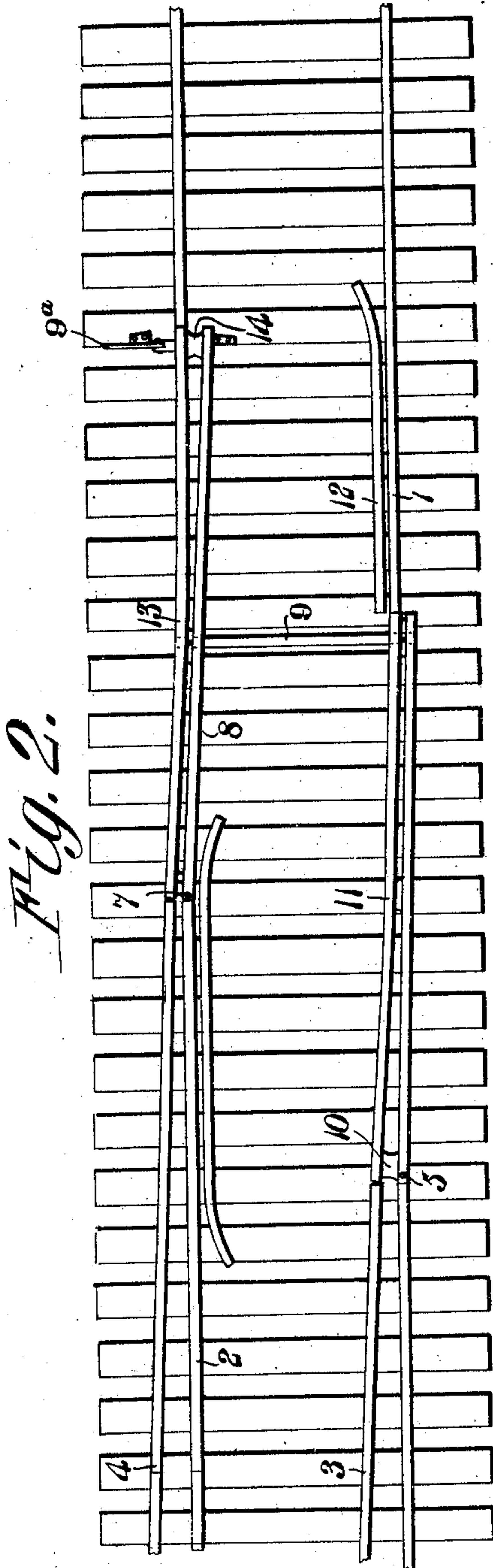
No. 859,485.

PATENTED JULY 9, 1907.

W. R. COLLIER.  
RAILWAY SWITCH.  
APPLICATION FILED DEC. 15, 1906.



WITNESSES:  
*E. W. Stewart*  
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# UNITED STATES PATENT OFFICE.

WILLIAM REID COLLIER, OF BEAUMONT, TEXAS.

## RAILWAY-SWITCH.

No. 859,485.

Specification of Letters Patent.

Patented July 9, 1907.

Application filed December 15, 1906. Serial No. 348,058.

*To all whom it may concern:*

Be it known that I, WILLIAM REID COLLIER, a citizen of the United States, residing at Beaumont, in the county of Jefferson and State of Texas, have invented  
5 a new and useful Railway-Switch, of which the following is a specification.

This invention relates to railway switches and more particularly to devices of this character commonly known as stub switches.

10 The object of the invention is to provide a switch the rails of which follow the general construction of the track. In other words the switch is made up of rails of regulation lengths so that the entire track including the switch will have all of its rails disposed with their  
15 ends opposite the center of the opposite rails. By constructing the switch in this manner the ends of the switch rails are not brought directly opposite each other and therefore the danger of derailment is reduced.

20 With these and other objects in view the invention consists of certain novel features of construction and combinations of parts which will be hereinafter more fully described and pointed out in the claims.

In the accompanying drawings is shown the preferred form of the invention.

25 In said drawings: Figure 1 is a plan view of the switch and showing the switch closed; and Fig. 2 is a similar view showing the switch open so as to direct a train on to a siding.

Referring to the figures by characters of reference, 1  
30 and 2 are the rails of the main line and 3 and 4 are the rails of a siding. The rails of the main line are placed with their ends opposite the centers of the opposite rails as ordinarily so that two wheels of a car will not simultaneously pass over the ends of rails. At the point  
35 where the switch is to be placed one of the rails 1 is left loose and is pivotally mounted as at 5 so as to form a shiftable member 6 and one of the rails 2 disposed opposite said member 6 is also left loose and pivoted as at 7 so as to form the other switch member 8. The loose  
40 end of the member 6 is connected to the central portion of the member 8 by a cross rod 9 and suitable switch throwing mechanism 9<sup>a</sup> may be connected to the loose end of the member 8. The rail 3 of the siding terminates close to the pivoted end of the member 6, and the  
45 siding rail 4 terminates close to the pivoted end of the member 8. Secured to the member 6 by means of suitable castings 10 or other means is a curved rail 11 which, when the member 6 is in alinement with the rails of the main line, registers with the end of the siding rail 3 and  
50 with one end of a guard rail 12. Said rail 11 is so connected to the member 6 that when said member 6 is shifted out of alinement with the rails of the main line the curved rail 11 will move into position between the siding rail 3 and the exposed end of the rail 1 adjoining

the guard rail 12. Secured to the switch member 8 is 55 a curved rail 13 similar to the rail 11 and which normally registers with the end of the siding rail 4. This rail 13 is connected to the member 8 by castings 14 or in any other preferred manner and is so disposed in relation thereto that when the rail member 8 is shifted out of 60 alinement with the rails of the main line said rail 13 will assume a position between the siding rail 4 and the exposed end of the rail 2 adjoining the switch throwing mechanism 9<sup>a</sup>. A suitable guard rail 15 is disposed between the rails 2 and 3 adjacent the pivoted end of the 65 switch member 8.

It is believed that the operation of the switch herein described will be fully understood in view of the foregoing description. It will be noted that when the switch is closed as shown in Fig. 1 the track of the main 70 line follows the general construction throughout its length because the rails constituting the switch members bear the same relation to each other as do the other rails of the track. When it is desired to direct a train on to the siding the switch members 6 and 8 are simultaneously shifted by means of the mechanism 9<sup>a</sup>, said 75 rails being movable together because of the connection 9 therebetween. This shifting of the switch members will cause the rails 13 and 11 to assume positions between the siding rails 4 and 3 and the main rails 2 and 80 1. It will be seen that the switch members 6 and 8 and the rails 11 and 13 are disposed close together and very little movement is necessary in order to shift the switch from one position to the other. The movement at the pivotal end of each switch member is so slight that the 85 adjoining break between the siding rail and the rail 11 or 13 will be so small as to be free of all objections.

The preferred form of the invention has been set forth in the foregoing description but I do not limit myself thereto as I am aware that modifications may be 90 made therein without departing from the spirit or sacrificing the advantages thereof, and I therefore reserve the right to make such changes as fairly fall within the scope of the claims.

What is claimed is:

95 1. The combination with the rails of a main line, the rails at one side of said line lapping those of the other side of the line, two of the lapping rails being pivoted at one end; of means for simultaneously swinging said pivoted rails laterally, siding rails, and rails movable with 100 the pivoted rails and adapted to be shifted between the siding rails and the rails of the main line.

2. The combination with rails of the main line, the rails at one side of said line lapping those of the other side; of a switch consisting of two of said lapped rails 105 pivoted at one end, a connection between said rails, means for swinging the rails laterally simultaneously, siding rails, and rails connected to and movable with the pivoted rails and adapted to assume positions between the siding rails and rails of the main line. 110

3. The combination with the rails of a main line, the

rails of one side of said main line lapping those of the other side; of a switch consisting of two of said lapping rails pivoted at one end, siding rails, curved rails connected to and movable with the pivoted rails, means for  
5 shifting the pivoted rails to one side simultaneously to bring them into or out of alinement with the rails of the main line, said curved rails being adapted to be shifted between the siding rails and the rails of the main line, and a guard rail fixedly secured between the rails of the

main line, one of said curved rails being adapted when in 10 one of its positions to register therewith.

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

WILLIAM REID COLLIER.

Witnesses:

H. B. OXFORD,

O. D. KAULBACH.