

No. 704,414.

Patented July 8, 1902.

W. WHARTON, JR.  
RAILWAY SWITCH.

(Application filed May 6, 1902.)

(No Model.)

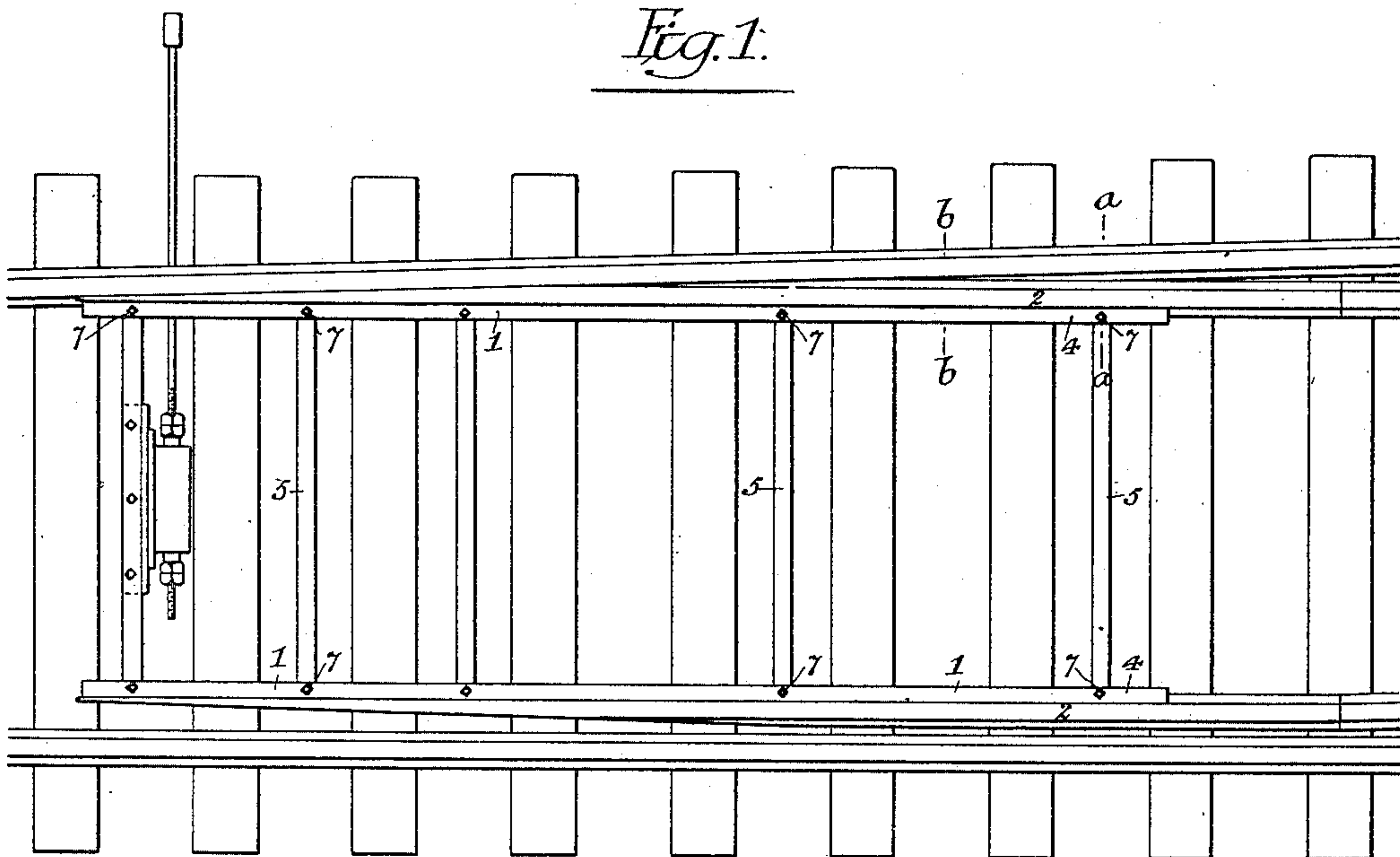


Fig. 2.

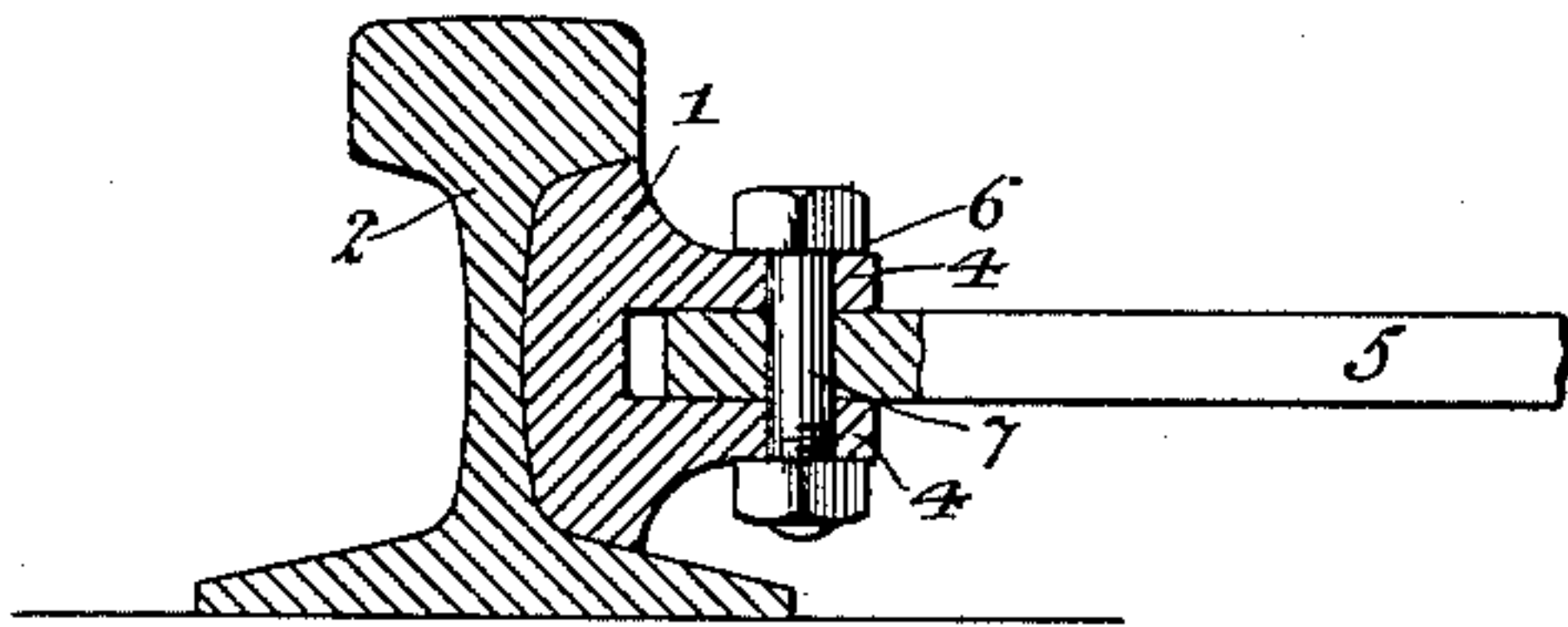


Fig. 3.

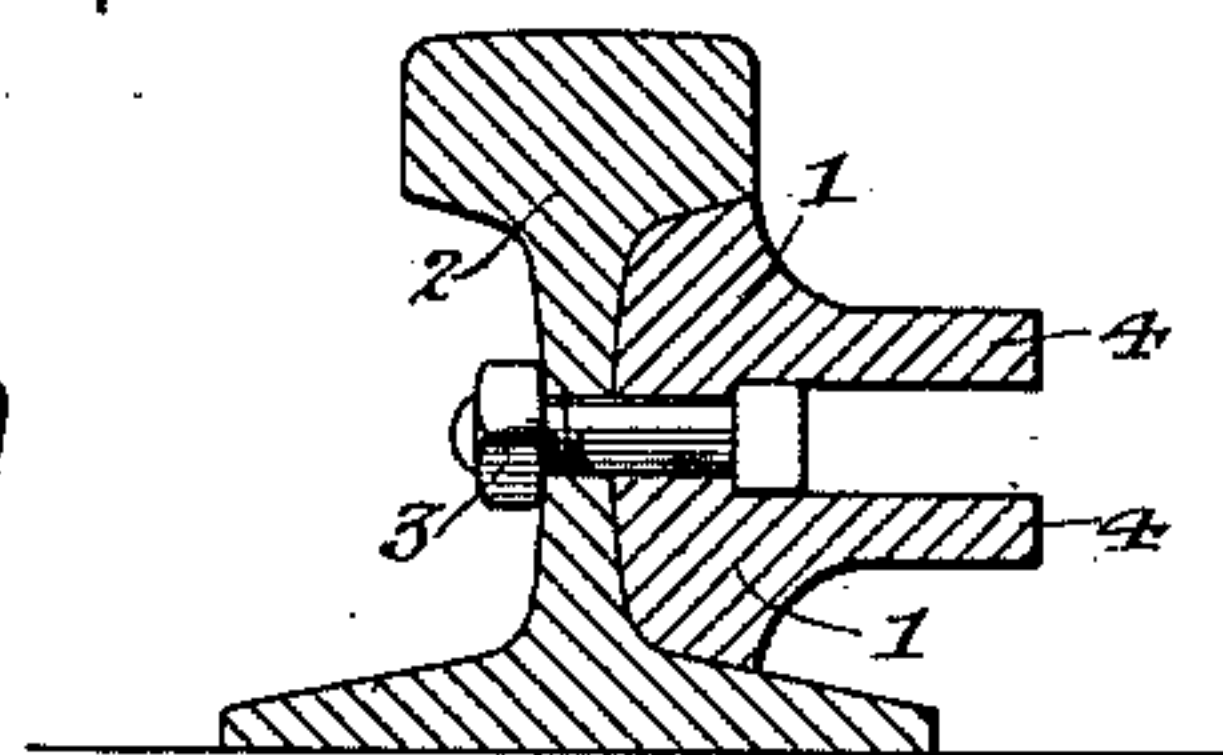
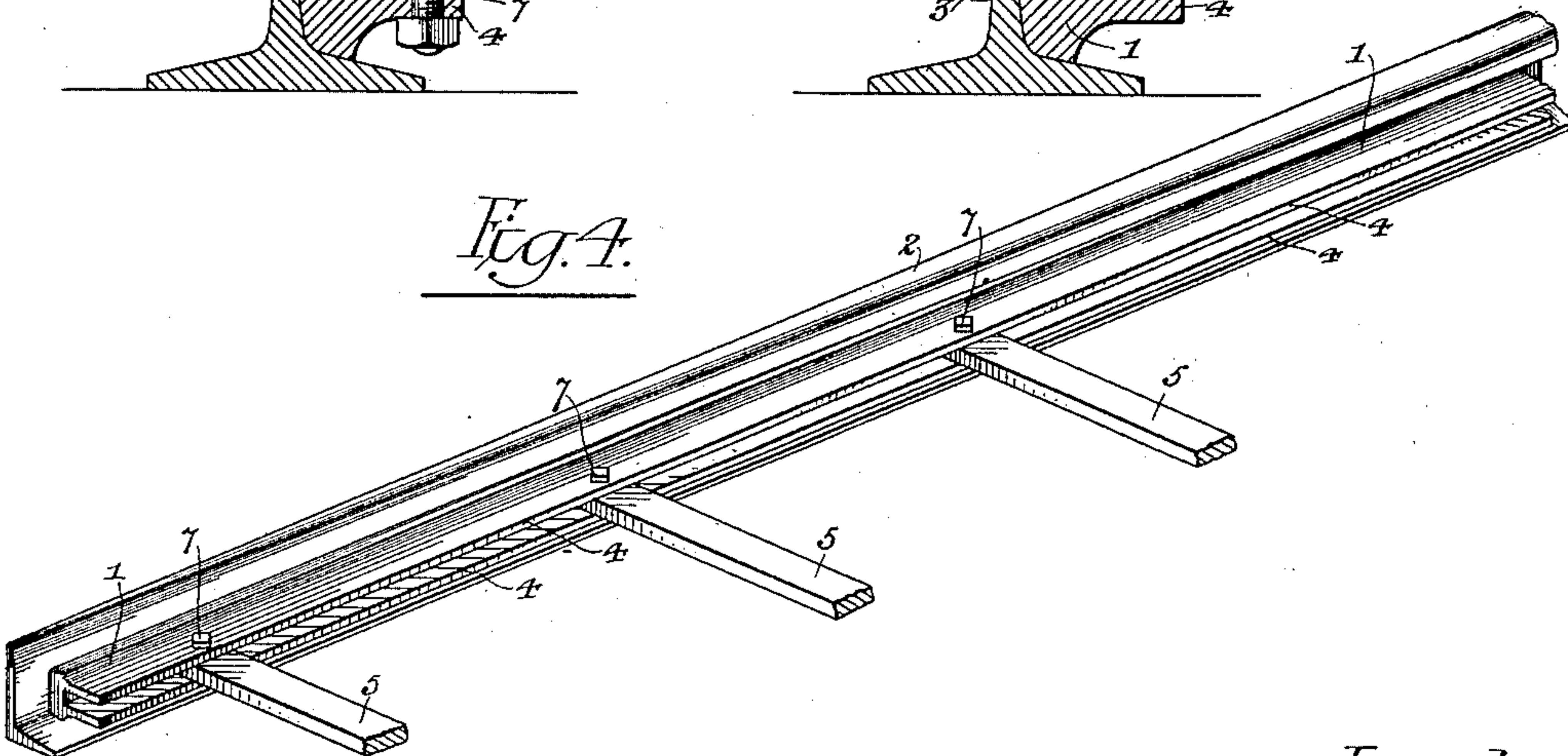


Fig. 4.



Witnesses:-

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by his Attorneys:-

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# UNITED STATES PATENT OFFICE.

WILLIAM WHARTON, JR., OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR  
TO WILLIAM WHARTON, JR., & COMPANY, INCORPORATED, OF PHILA-  
DELPHIA, PENNSYLVANIA, A CORPORATION OF PENNSYLVANIA.

## RAILWAY-SWITCH.

SPECIFICATION forming part of Letters Patent No. 704,414, dated July 8, 1902.

Application filed May 6, 1902. Serial No. 106,150. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM WHARTON, Jr., a citizen of the United States, residing in Philadelphia, Pennsylvania, have invented  
5 certain Improvements in Railway-Switches, of which the following is a specification.

My invention relates to railway-switches; and it consists of an improved reinforcing-bar for use in connection with a switch-rail  
10 for the purpose of stiffening and strengthening the same.

My invention is fully shown in the accompanying drawings, in which—

Figure 1 is a plan view showing the appli-  
15 cation of my improved reinforcing-bar to the rails of a railway-switch. Fig. 2 is a section taken on the line *a a*, Fig. 1. Fig. 3 is a section taken on the line *b b*, Fig. 1; and Fig. 4 is a perspective view of the reinforcing-bar,  
20 showing the switch-connecting rods attached thereto.

As is well known, the necessary taper given to the pointed rails of railway-switches weakens said rails very greatly, and under the  
25 modern conditions of trains of increased weights moving at increased speeds it is necessary to stiffen and to strengthen the pointed rails. For this purpose I have devised the reinforcing-bar 1, (clearly shown in the accom-  
30 panying drawings,) which is constructed to fit against the web of the switch-rail 2, between the head and the base-flange thereof, and is secured thereto, preferably by bolts 3, passing through said reinforcing-bar and the web of the switch-rail. The reinforcing-  
35 bar is formed with the two longitudinal ribs 4, which are preferably disposed substantially as shown in the accompanying drawings, and

these ribs, while strengthening the reinforcing-bar, serve to hold the heads of the bolts 40 3 and prevent them from turning, and they also provide means at any place whatever for the ready attachment of the connecting-rods 5, used to connect the two switch-rails together. For the attachment of these connect-  
45 ing-rods holes 6 are drilled through said ribs 4 for the reception of the securing-bolts 7.

It will be seen that the reinforcing-bar 1 can be made very readily and cheaply, as it can be rolled of any length required and after-  
50 ward may be cut into such shorter lengths as may be needed for use with various lengths of switch-rails.

Having thus described my invention, I claim and desire to secure by Letters Pat-  
55 ent—

1. In a railway-switch, the combination of a switch-rail and a reinforcing-bar having two longitudinal strengthening-ribs.

2. In a railway-switch, the combination of 60 a switch-rail and a reinforcing-bar attached thereto having two longitudinal strengthening-ribs.

3. In a railway-switch, the combination of a switch-rail, a reinforcing-bar attached there-  
65 to having two longitudinal strengthening-ribs, and connecting-rods having their ends fitting between said ribs and attached thereto by suitable fastening means.

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

WILLIAM WHARTON, JR.

Witnesses:

MURRAY C. BOYER,  
JOS. H. KLEIN.