

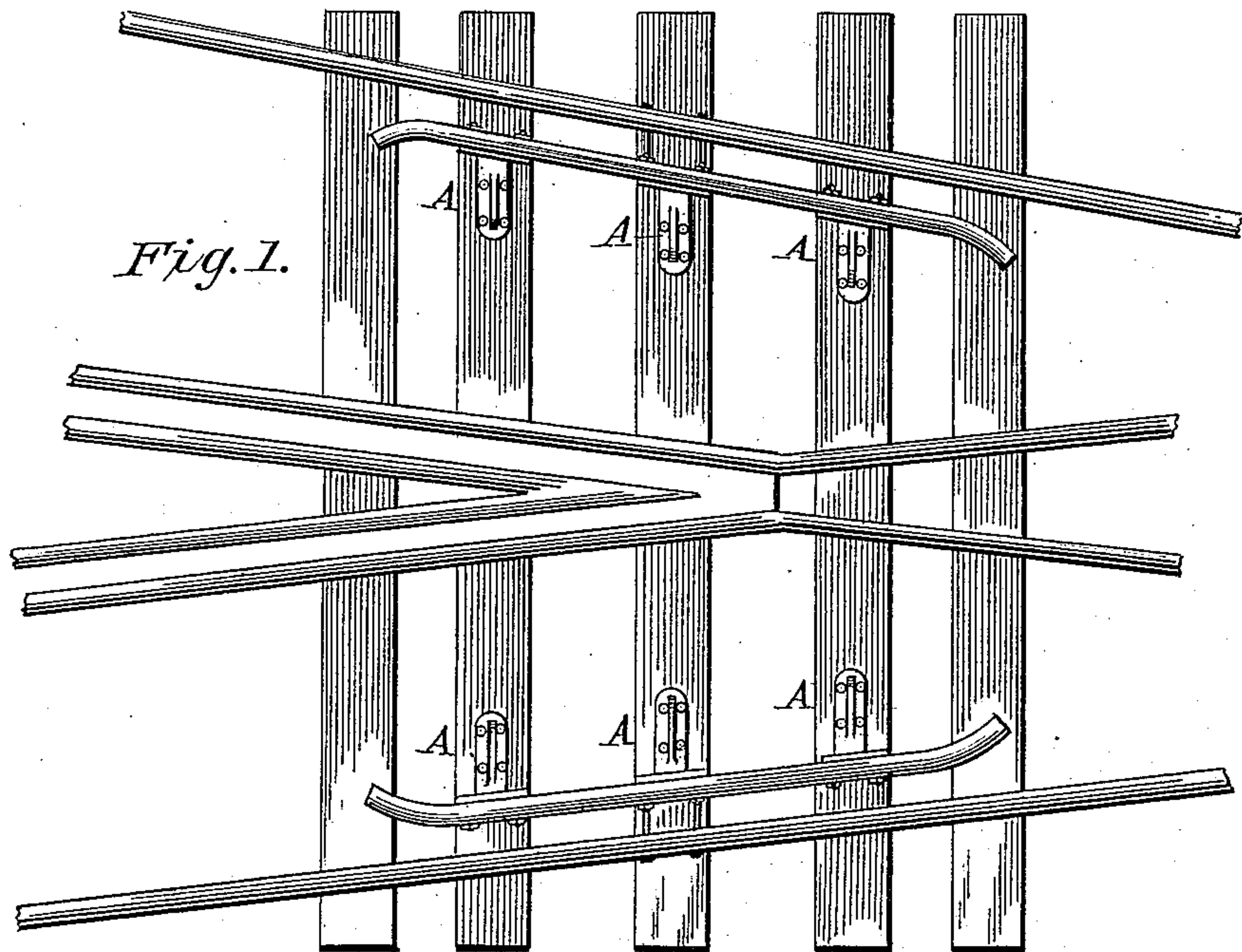
(No Model.)

J. WATERMAN & N. A. GRAY.

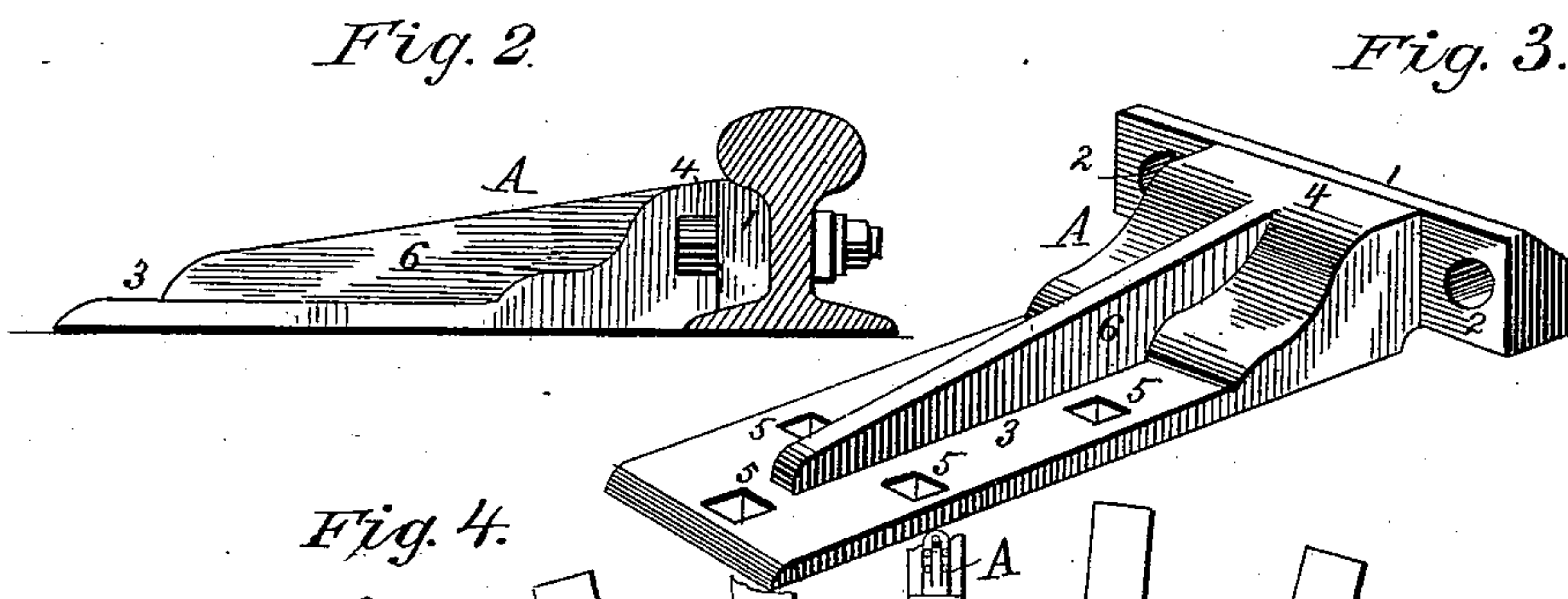
RAILWAY RAIL BRACKET.

No. 370,292.

Patented Sept. 20, 1887.

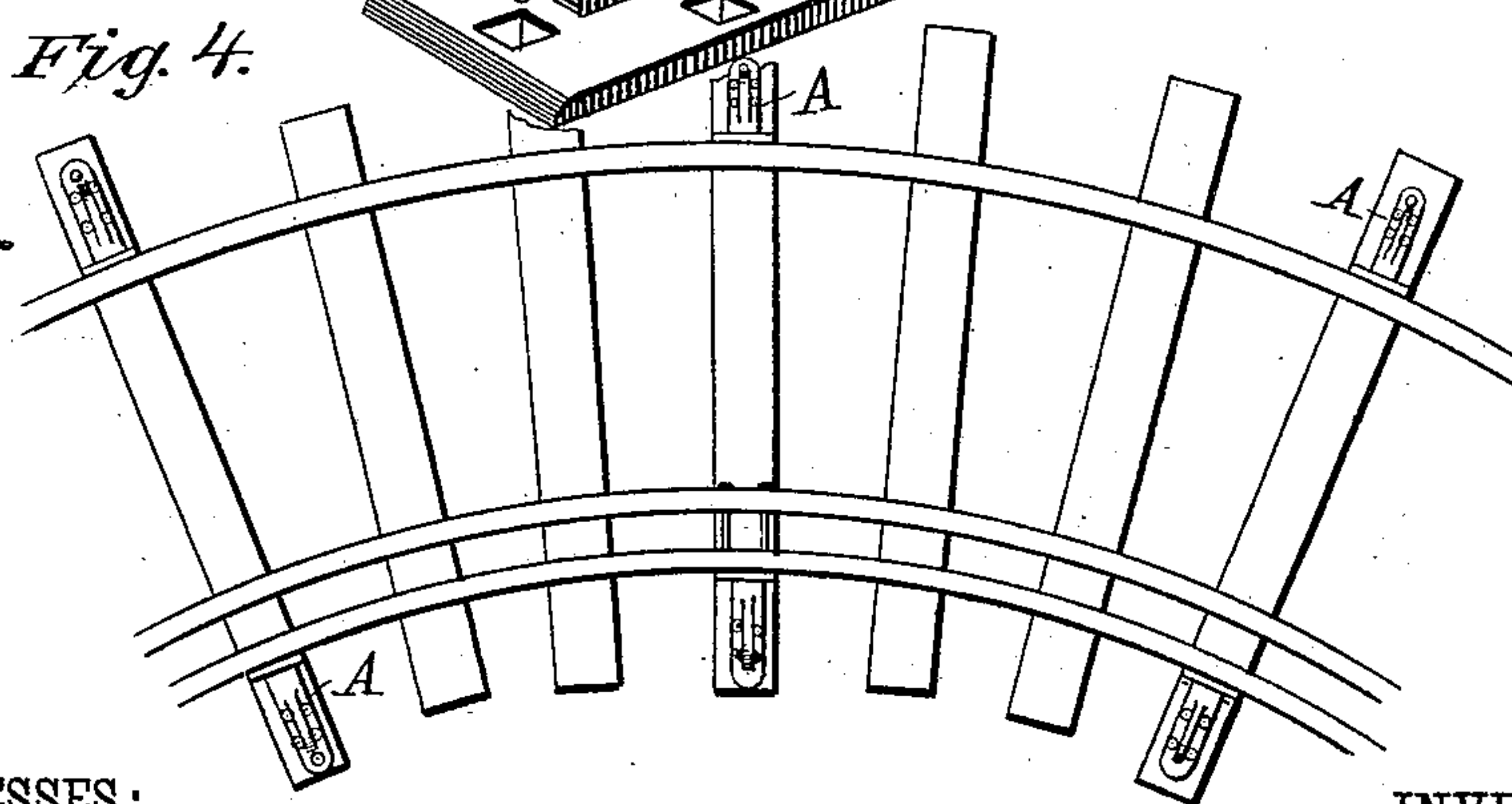


*Fig. 1.*



*Fig. 2.*

*Fig. 3.*



*Fig. 4.*

WITNESSES:  
*Fred G. Dieterich*  
*P. B. Turpin,*

INVENTOR:  
*Jno. Waterman*  
*N. A. Gray*  
BY *M. W. L.*  
ATTORNEYS.



# UNITED STATES PATENT OFFICE.

JOHN WATERMAN AND NELSON A. GRAY, OF VILLISCA, IOWA.

## RAILWAY-RAIL BRACKET.

SPECIFICATION forming part of Letters Patent No. 370,292, dated September 20, 1887.

Application filed May 28, 1886. Serial No. 203,561. (No model.)

*To all whom it may concern:*

Be it known that we, JOHN WATERMAN and NELSON A. GRAY, of Villisca, in the county of Montgomery and State of Iowa, have invented  
5 a new and useful Improvement in Railway-Rail Brackets, of which the following is a specification.

Our invention is an improvement in railway-rail brackets intended especially for use in  
10 connection with guard-rails; and it consists in the novel constructions and combinations of parts, as will be described and claimed.

In the drawings, Figure 1 is a plan view of a section of track provided with our improvements. Fig. 2 is a cross-sectional view  
15 of a rail with our bracket in place. Fig. 3 is a detail perspective view of the bracket, and Fig. 4 shows the bracket as used on sharp curves.

20 The bracket A is formed with a head-piece, 1, formed to fit in the hollow of a rail, and having near its ends bolt-holes 2 for the passage of the fastening-bolts. The shank 3 of the bracket unites with the head-piece centrally  
25 between the ends thereof, and at its juncture with such head is formed at 4 of a vertical thickness about equal with the same, while the main portion of said shank is extended out flat, as shown, and such portion is formed with  
30 suitable holes, 5, for the fastening-spikes.

To give the shank the necessary strength, without making the same unduly heavy, it is formed with a bracing-rib, 6, extended from  
35 the thickened portion 4 outward to or nearly to the end of the shank, as shown. This rib, as will be seen, is elongated in a vertical direction and gives great strength to the shank without adding in any very great degree to the weight thereof. In practice this bracket  
40 is bolted to the guard-rail and spiked securely to the tie, thus holding the rail flat against the tie and avoiding the use of spikes in connection with the foot of the guard-rail, and the bracket not only braces the rail in position, but secures it, so that neither ice nor dirt  
45 can possibly work under it to cause it to be thrown out of position, as is experienced with the common method of fastening such guard-rails. In use it is preferred to use three brack-

ets, one near each end and one at the center, 50 to each guard-rail, and also to extend the bolts securing the center bracket to and connect them with the main rail, as will be seen.

Obviously, the bracket might be used in connection with the outer rail on a curve to  
55 prevent spreading of the track.

In use on sharp curves, as shown in Fig. 4, spreading of the track will be prevented, as well as all injury to cars or engines resulting  
60 from the spreading of the track.

Heretofore railroad-tracks have been designed having guard-rails separated from the adjacent main rails by filling-blocks and having angle-plates extended longitudinally in the direction of length of the guard-rail and  
65 bolts connecting said angle-plates and guard and main rails and extended through the filling-block. Now, we do not broadly claim such construction as our invention, which omits the filling-blocks and at the same time provides a  
70 firm rigid brace for the guard-rail.

It is obvious that a great saving of expense results from the omission of such filling-blocks; also, by reason thereof, ample space is provided  
75 for all sizes of car-wheel flanges.

We do not broadly claim the invention of the combination, with the main and guard rails, of a bracket or brace spiked to the tie and a bolt or bolts connecting the bracket and the main and guard rails together; but,  
80

Having thus described our invention, what we claim as new is—

1. In a railway-track, the combination of a main rail, a guard-rail, brackets spiked to the ties, and bolts connecting said brackets with  
85 the guard-rail, substantially as set forth.

2. A bracket for railroad-rails, formed with a head, 1, having bolt-holes near its opposite ends and having the shank 3 united at one end with the head 1 centrally between the  
90 ends of the latter and provided with a longitudinal rib, substantially as set forth.

JOHN WATERMAN.  
NELSON A. GRAY.

Witnesses:

C. E. RICHARDS,  
C. S. MURPHY.