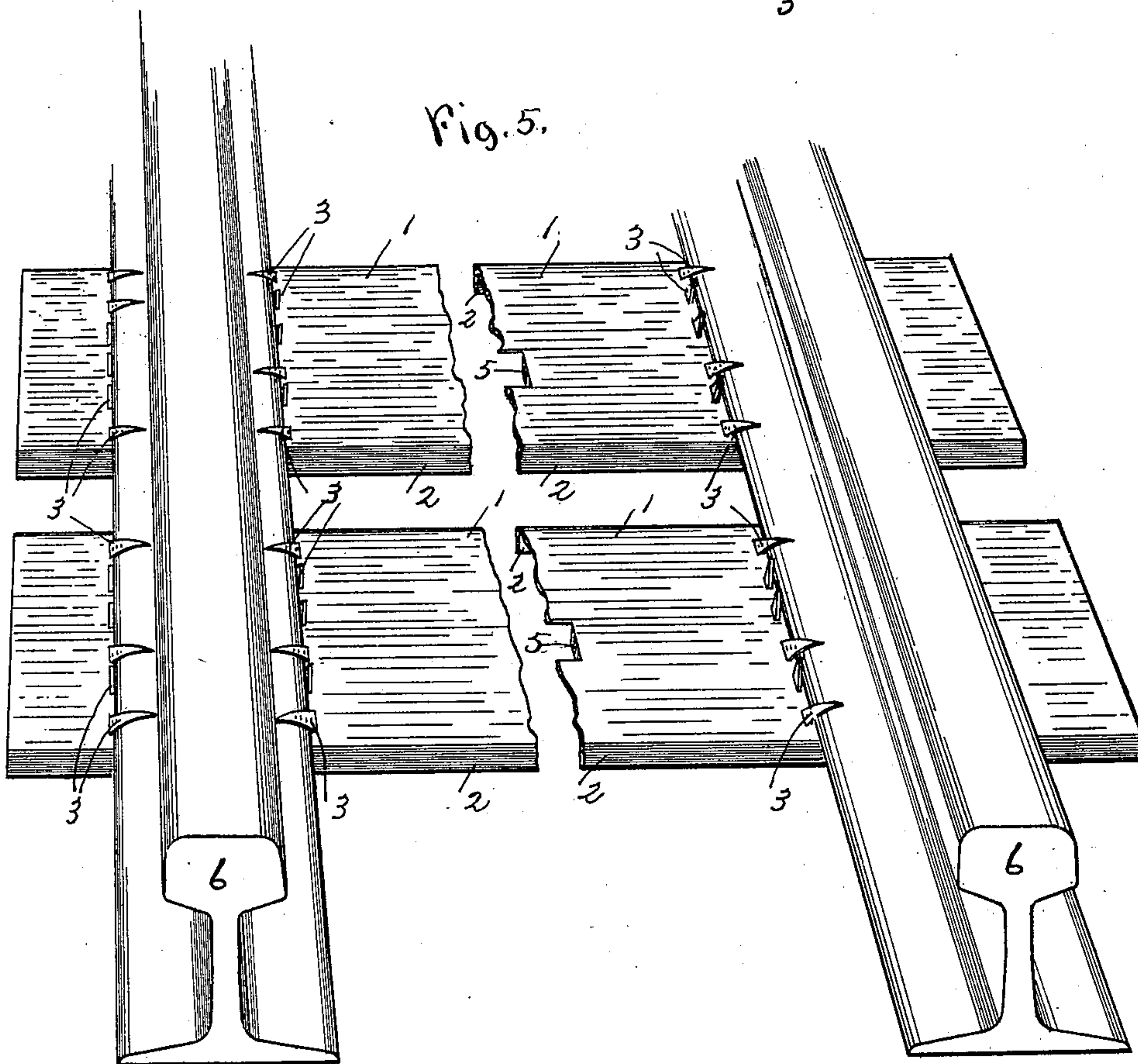
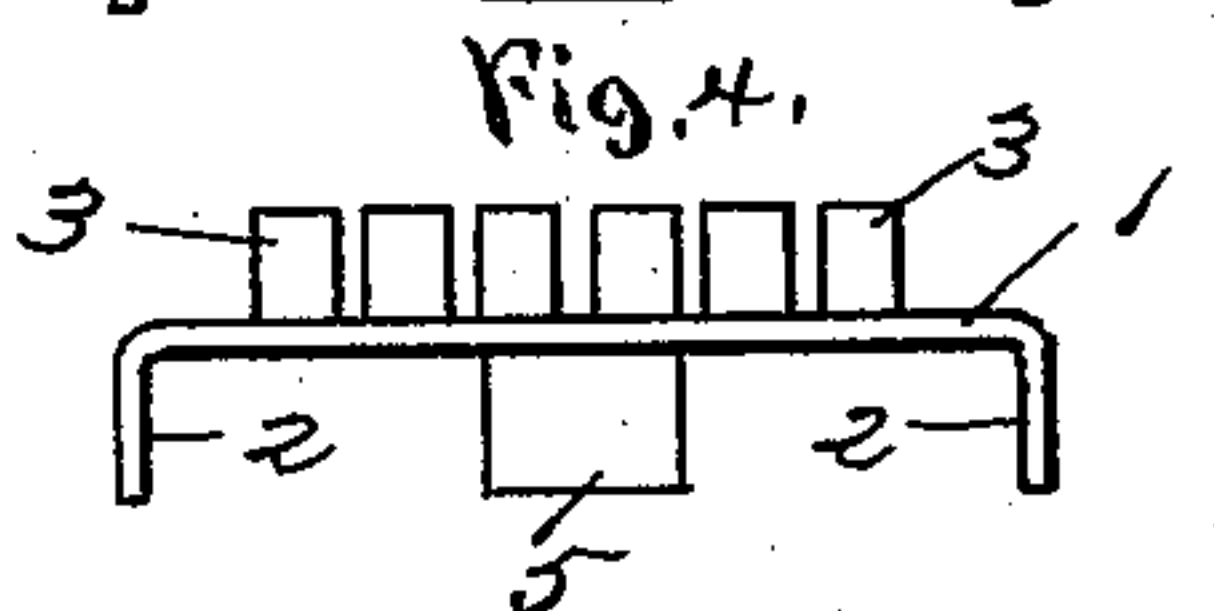
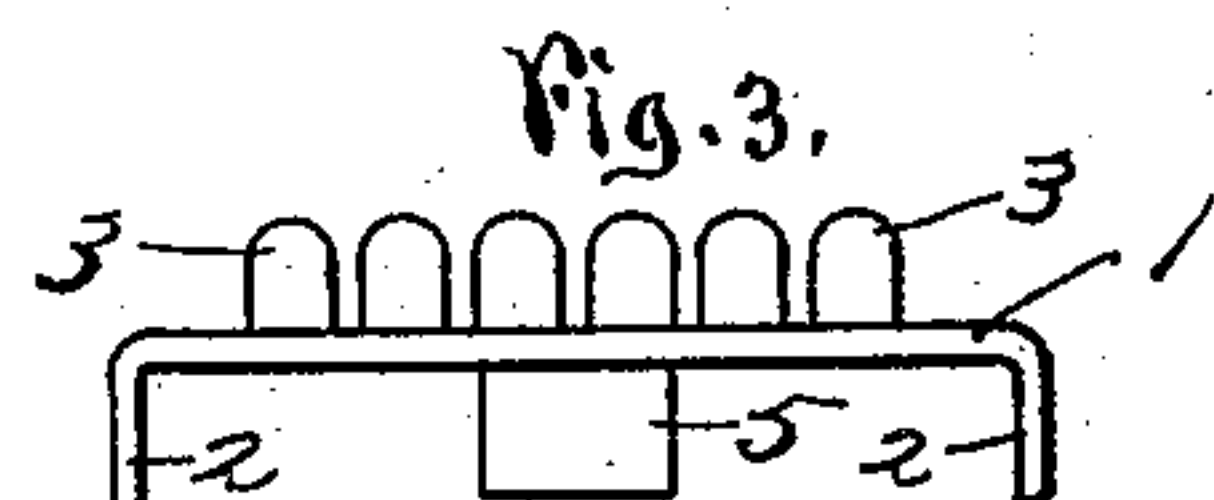
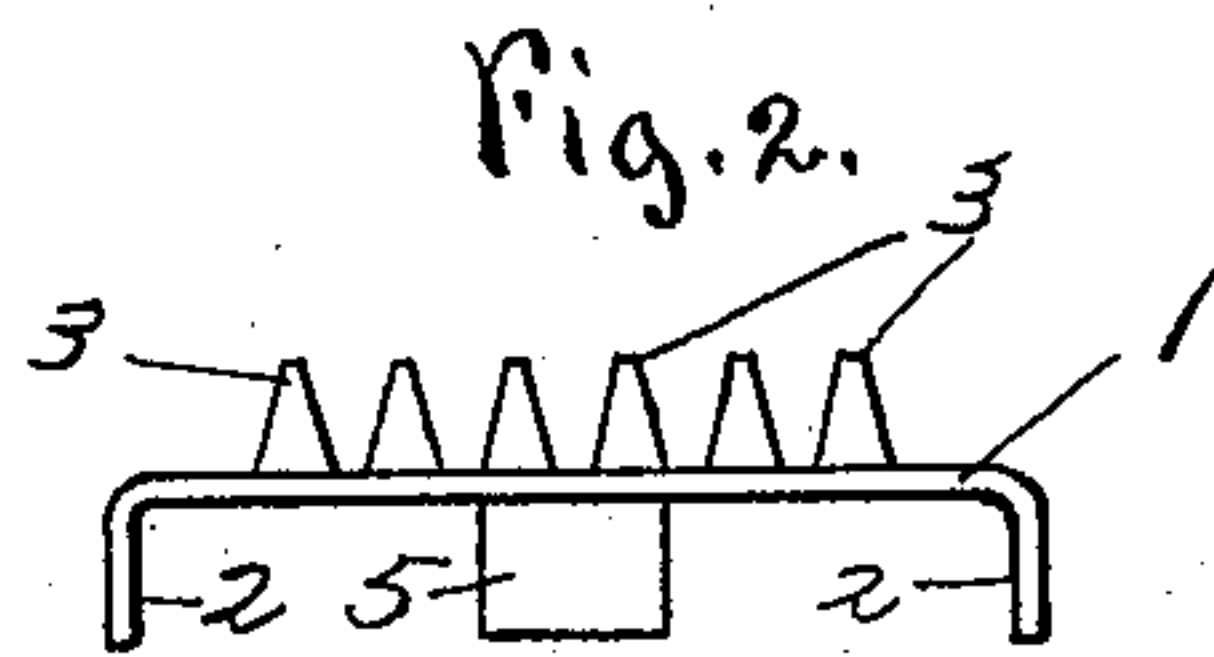
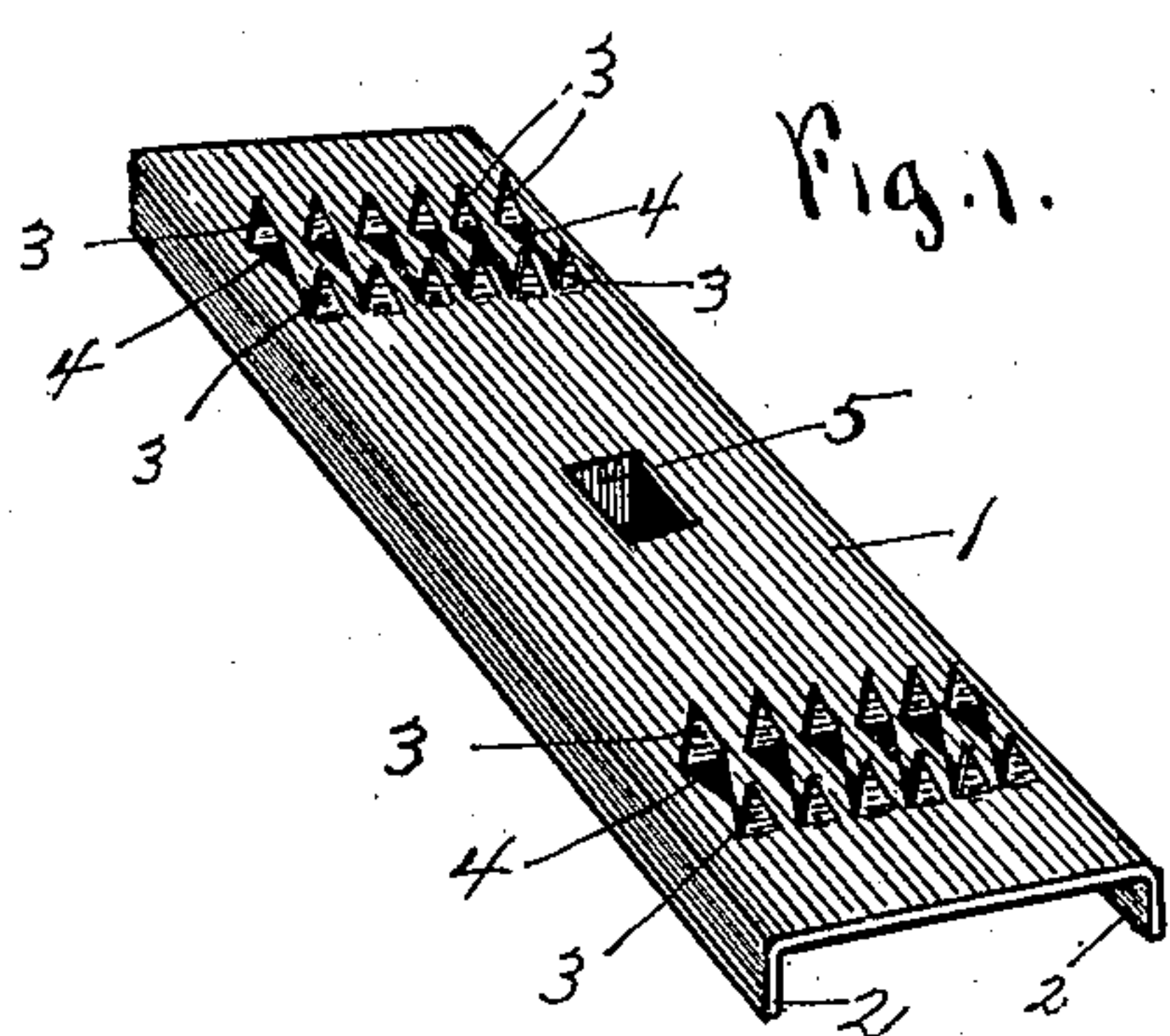


(No Model.)

J. N. POWELL.  
METALLIC RAILWAY TIE.

No. 599,045.

Patented Feb. 15, 1898.



Witnesses  
*G. E. Martin.*  
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Inventor.  
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*By W. B. Hagin, atty.*

# UNITED STATES PATENT OFFICE.

JASPER N. POWELL, OF WICHITA, KANSAS.

## METALLIC RAILWAY-TIE.

SPECIFICATION forming part of Letters Patent No. 599,045, dated February 15, 1898.

Application filed January 27, 1897. Serial No. 620,853. (No model.)

*To all whom it may concern:*

Be it known that I, JASPER N. POWELL, a citizen of the United States of America, residing at Wichita, in the county of Sedgwick and State of Kansas, have invented certain new and useful Improvements in Metallic Railway-Ties, of which the following is a specification, reference being had therein to the accompanying drawings, and the figures of reference thereon, forming a part of this specification, and in which—

Figure 1 is a perspective view of my improved metallic railway-tie. Figs. 2, 3, and 4 are end views of the same, showing different forms of lugs which may be stamped out of said tie. Fig. 5 is a perspective view of a portion of two rails secured to two of my improved metallic ties.

This invention relates to certain improvements in metallic railway-ties; and it consists of one solid piece of metal having the sides turned down, forming what is termed a "grooved" form, a series of lugs stamped out of the top surface adapted to secure a railway-rail in place, and a downwardly-extending lug; and the object of my invention is to provide a metallic tie of durable material and of practical form for service.

Referring to the drawings, 1 represents a metallic tie for use in railway construction. 2 represents the sides turned down on either side the entire length of said tie, making what is termed a "grooved" form. 3 represents lugs stamped out from the upper sur-

face of said tie from the under side, leaving the openings 4 in said ties, as shown in Fig. 1. 5 represents a lug extending downward from the upper surface of said tie for preventing it from sliding endwise. 6 represents railway-rails.

In using metallic ties of this construction one or more of the lugs are turned down on the flange of the rail at one time, leaving the balance of said lugs up in their original position, as shown in Fig. 5.

When it is desirable to remove a rail or tie, the lugs are bent up to their original position. Should the lugs become weakened or broken off by bending up and down a number of times, the others can be used.

The lug 5 is for the purpose of preventing the tie from slipping endwise by tamping said tie down in the road-bed.

Having thus described my invention, what I claim as new and useful, and desire to secure by Letters Patent, is as follows:

The herein-described metallic railway-tie consisting of a grooved metal strip of proper length, having lugs stamped out of said tie at either end adapted to hold a railway-rail in proper position, by bending said lugs down on the flanges of said rails, and a transverse lug stamped out of said tie extending downward from the upper surface.

JASPER N. POWELL.

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