

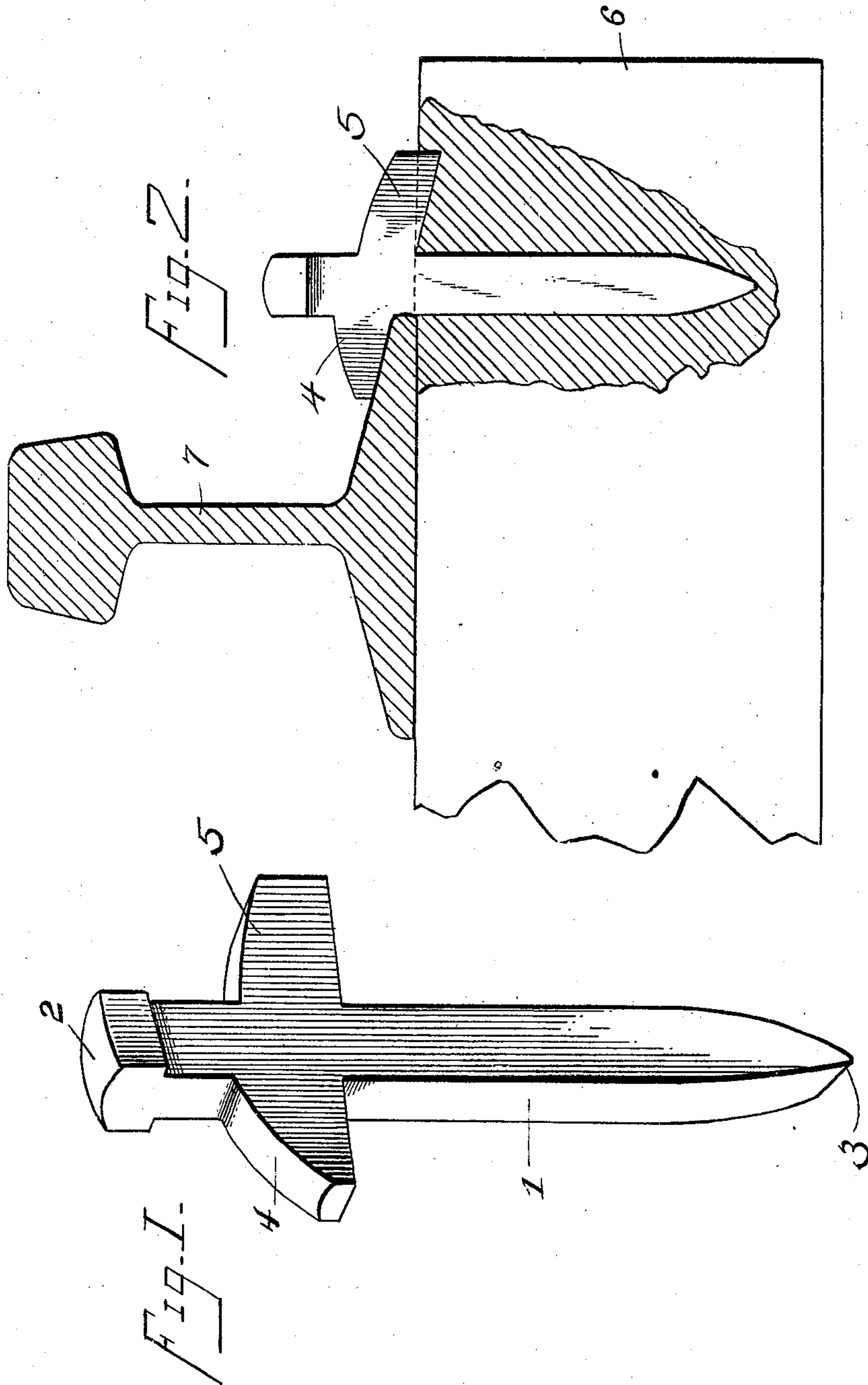
No. 682,712.

Patented Sept. 17, 1901.

C. JOHNSON.  
RAILROAD SPIKE.

(Application filed July 6, 1900.)

(No Model.)



Witnesses

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# UNITED STATES PATENT OFFICE.

CHARLES JOHNSON, OF ELY, MINNESOTA.

## RAILROAD-SPIKE.

SPECIFICATION forming part of Letters Patent No. 682,712, dated September 17, 1901.

Application filed July 6, 1900. Serial No. 22,761. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES JOHNSON, a citizen of the United States, residing at Ely, St. Louis county, and State of Minnesota, and  
5 whose post-office address is also that place, have invented a new and useful Improvement in Railroad-Spikes; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, which are made a part  
10 of this specification.

This invention relates to track-fastenings, and has for its object to provide an improved device of this character in the nature of a  
15 spike which is constructed to overhang the flange of a rail and also provided with a brace engagement with a tie to prevent the spike from working laterally away from the rail, the rail-overhanging portion of the spike and  
20 the brace thereof being mutually arranged so as to have a simultaneous completed engagement with the flange of the rail and the cross-tie, respectively, whereby the driving of the spike is facilitated and a strong and durable  
25 engagement with the rail is insured.

With this and other objects in view the present invention consists in the combination and arrangement of parts, as will be hereinafter more fully described, shown in the accompanying drawings, and particularly pointed  
30 out in the appended claim, it being understood that changes in the form, proportion, size, and minor details may be made within the scope of the claim without departing from the spirit or sacrificing any of the advantages  
35 of the invention.

In the drawings, Figure 1 is a perspective view of the improved spike. Fig. 2 is a sectional elevation of a rail and a cross-tie with  
40 the spike applied in fastened position.

Like characters of reference designate corresponding parts in both figures of the drawings.

The shank 1 of the spike is of the common  
45 or ordinary form, having the terminal laterally-enlarged head 2 to receive the blows of a sledge in the driving of the spike and the pointed opposite end 3 to facilitate the driving of the spike. Upon the intermediate portion of the spike and directed laterally outward in opposite directions are the opposite  
50 projections 4 and 5, of which the projection 4

is slightly above the other projection and is designed to overhang and engage the flange of a rail, as shown in Fig. 2 of the drawings. 55  
The rail-engaging projection 4 is upon what will be termed the "inner" side of the spike, or that side which is next to the rail when in use, and has its under side inclined outwardly in the direction of the head end of the spike, 60  
while the tie-engaging projection 5 has its lower side disposed below the lower side of the former projection and arranged parallel therewith.

In Fig. 2 of the drawings there has been 65 shown one end portion of a cross-tie 6, which is of wood, as usual, and supported upon this tie is an ordinary rail 7, the spike being driven into the tie, so as to hold the rail thereto, with the projection 4 overhanging and engaging the flange of the rail, and the lower 70 side and outer end portion of the projection 5 sunk into the top of the wooden tie under the effect of the blows of the sledge or implement used in driving the spike, whereby said 75 projection forms a brace to prevent the spike from being forced laterally away from the rail. It will be observed that the undersides of the projections are arranged so that when the projection 4 is seated upon the flange of 80 the rail the under side of the brace projection has been sunk to its inner end in the top of the tie, whereby both projections are simultaneously seated, which facilitates the driving of the spike. 85

An important feature of the present invention resides in the fact that the lateral projections are provided upon an intermediate part of the spike, and therefore remote from the upper head portion thereof and out of 90 possible contact by the implement used to strike the head in driving the spike, whereby the projections are free from the impact of the driving-blows and are thereby protected against breakage and damage from such 95 blows. Heretofore projections have been carried by the head, and thereby open to contact with the driving implement and liable to become broken thereby. It will also be observed that the outer end of the projection 100 5 intersects the bottom or under side thereof at an acute angle, thereby forming a wedge which readily enters the tie and also forces the upper end portion of the spike laterally

inward into firm engagement with the flange of the rail, thereby insuring a firm grip of the projection 4 upon the rail.

What is claimed is—

- 5 A railway-spike, comprising a pointed shank, having a laterally-enlarged driving-head at the oppositely-extended terminal, and provided with intermediate lateral projec-  
10 tions upon opposite sides of the shank and inclined transversely across the same at corresponding angles, one of the projections being located above the other and forming a

rail-engaging member, and the other projection forming a tie-engaging brace, the outer end thereof intersecting the under side at an acute angle and forming a wedge. 15

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

CHAS. JOHNSON.

Witnesses:

AUGUST PETERSON,  
EMIL FRIDSBERG.