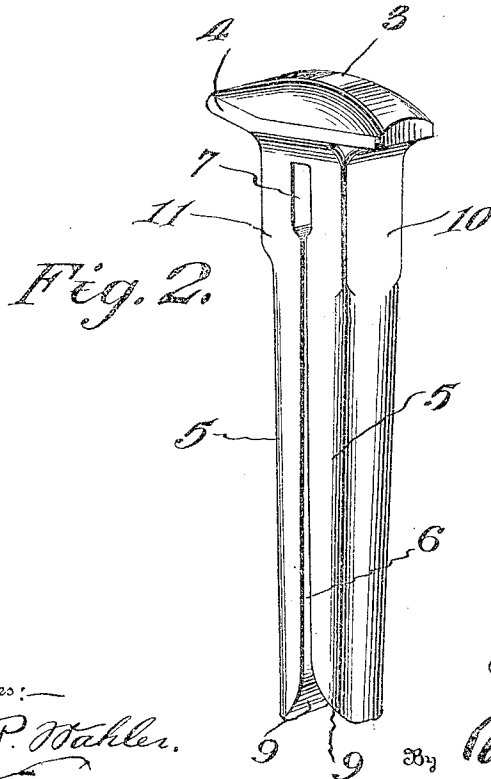
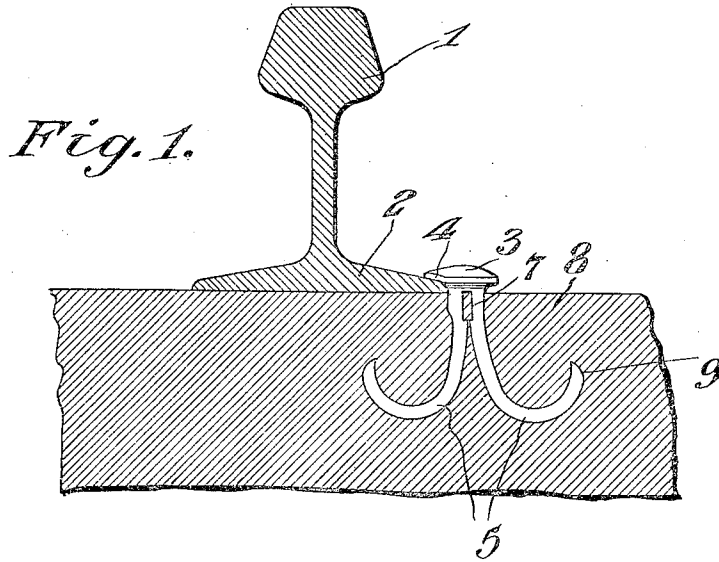


J. W. BALFOUR.  
SPIKE.  
APPLICATION FILED SEPT. 1, 1908.

925,264.

Patented June 15, 1909.



Witnesses:—

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*Victor J. Evans*

Attorney

# UNITED STATES PATENT OFFICE.

JOHN W. BALFOUR, OF TACOMA, WASHINGTON.

## SPIKE.

No. 925,264.

Specification of Letters Patent.

Patented June 15, 1909.

Application filed September 1, 1908. Serial No. 451,222.

*To all whom it may concern:*

Be it known that I, JOHN W. BALFOUR, a subject of Edward VII, King of England, residing at Tacoma, in the county of Pierce and State of Washington, have invented new and useful Improvements in Spikes, of which the following is a specification.

This invention relates to spikes designed particularly for use in railway structures, and one of the principal objects of the same is to provide a spike which will not work loose, which can be withdrawn and redriven and which will not wear out by the movement of the base flange under the head.

Another object of the invention is to provide a railroad spike comprising two members separated by a slot; at the upper portion of said slot, immediately under the head of the spike an enlarged opening is formed which prevents the breaking of the arms in driving and withdrawing the spike and at the same time permits an accumulation of fibers of the wood to lock the spike in place.

These and other objects may be attained by means of the construction illustrated in the accompanying drawing, in which,—

Figure 1 is a sectional view of a railroad rail and tie and showing a spike engaging the base flange of the rail and said spike being driven into the tie. Fig. 2 is an enlarged perspective view showing a spike made in accordance with my invention.

Referring to Fig. 1 of the drawing, the numeral 1 designates a railroad rail of the usual construction and provided with a base flange 2. The spike consists of a head 3 which at one side is provided with an inclined portion 4, designed to fit over the outer edge of the base flange 2 of the rail. Extending from the head are the two legs 5, said legs being separated by a slot 6 which is larger at the outer end and gradually tapers toward the upper end, said slot communicating with an enlarged recess 7, the purpose of which is to prevent the breaking

of the arms 5 in driving and withdrawing the spike and to serve as a lock for the spike in containing a quantity of the fibers of the tie 8. The outer ends of the arms 5 are rounded outwardly, as at 9, said arms being preferably rounded upon their outer corners for a distance from the points thereof to near the head. The arms 5 are practically rectangular at their upper ends, as at 10. On the inner leg an enlargement 11 is formed, said enlargement adapted to bear against the outer edge of the base flange 2 of the rail in order to take the wear of said rail upon the underside of the head and prevent the ready wearing away of one of the legs 5.

From the foregoing it will be obvious that a spike made in accordance with my invention when driven will hold firmly in place, owing to the spreading of the legs 5 and also the accumulation of fibers in the recess 7.

I claim:—

The herein described rail spike having a head provided with an inclined projecting portion upon one side to fit the base flange of a rail, legs extending from the head and provided with outwardly curved lower ends, said legs being separated by a slot gradually decreasing in width from the outer ends of said legs to the underside of the head, the body portion of said spike being provided with a rectangular enlarged recess at the upper end of the slot and the body portion of the spike under the head being rectangular in cross section and provided with an enlargement upon one side to take the wear of the spike against the base flange of the rail, the legs of said spike being rounded upon their outer sides.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN W. BALFOUR.

Witnesses:

M. McELROY,  
H. O. WILHELM.