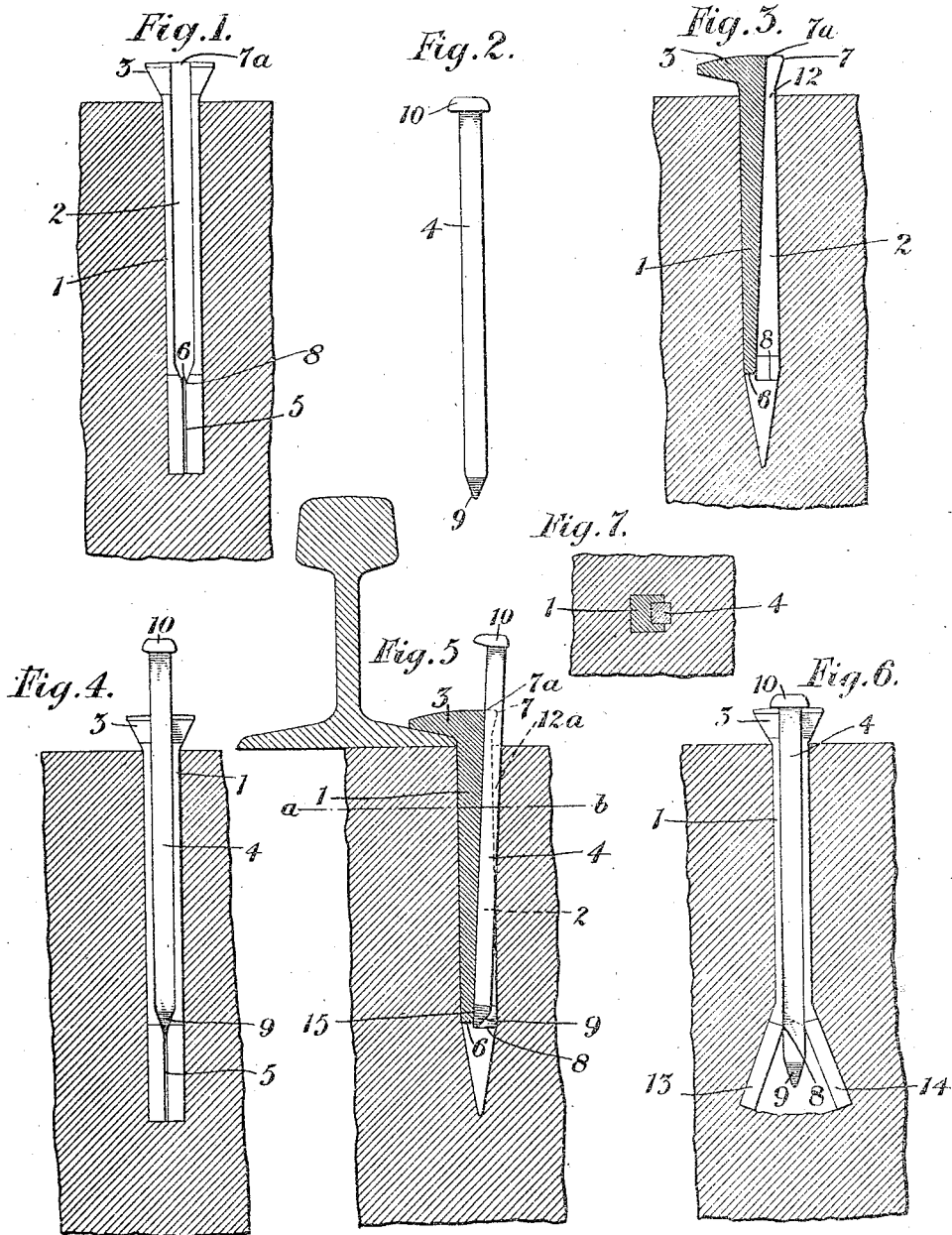


991,688.

Patented May 9, 1911.



Witnesses:
M. Levy
B. Roman.

Roderick Beggs Inventor
By his Attorneys *Wm. Finck & Lawrence*

UNITED STATES PATENT OFFICE.

RODERICK BEGG, OF NEW YORK, N. Y., ASSIGNOR OF ONE-HALF TO HUGH R. TUDHOPE,
OF ORILLIA, CANADA.

RAILROAD-SPIKE.

991,688.

Specification of Letters Patent.

Patented May 9, 1911.

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To all whom it may concern:

Be it known that I, RODERICK BEGG, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Railroad-Spikes; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to fastenings such as nails or spikes and especially to the kind that are commonly known and used as railway spikes.

At the present time in railway practice, rails are fastened to the ties by means of the ordinary spike, and due to the spikes being pointed at the lower extremity they are readily detached from the ties by any upward strain on the rails, being thereby pulled out of the ties and loosened, which often causes accidental derailments.

The object of my invention is to prevent such loosening of the spikes and rails, and it provides a railway spike of the general form and outline as the ordinary spike and provided with simple, improved means for rendering the same locked within the tie so as to prevent said spike from loosening and causing the consequences as described above.

My invention consists of the form and features hereinafter fully described and claimed.

In the accompanying drawings Figure 1, shows the spike when driven into the tie. Fig. 2, is a view of the auxiliary spike and Fig. 3, is a longitudinal section taken centrally through Fig. 1; Fig. 4, is a view similar to Fig. 1, but showing the auxiliary spike driven in position and before separating the ends; Fig. 5, is a longitudinal section taken centrally through Fig. 4; Fig. 6, shows the auxiliary spike driven to its limit and spreading the ends of the spike, and Fig. 7, is a transverse section through *a-b*, in Fig. 5.

Similar reference characters refer to similar parts in the different views of the drawing.

In this device, the ordinary railway spike 1, is provided with a channel 2, disposed

oppositely to the head 3. The transverse section of channel 2 is adapted to fit the auxiliary spike 4, Fig. 2, which is preferably rectangular in cross section and of a required length. The spike 1 is ordinarily tapered at its lower end and a central slit 5 is provided which extends upward to about the line 6 where the said tapering commences.

The rectangular channel 2 slants downwardly and extends from 7^a near the upper edge 7 down to 8, which is somewhat below the line 6 at the upper end of slit 5. The auxiliary-spike 4 is of a harder steel than the spike 1 and is provided with a head 10 similar to head 3 though of proportional dimensions. The point 9 is diamond-shaped, the side 15 being straight and the other sides of the point being beveled off as shown in the drawing.

In using this device, the spike 1 is driven into the tie as shown in Fig. 1, in the usual manner, as is ordinarily done in practice when fastening rails to the ties. The operator then places the auxiliary spike 4 with its point 9 at 12 and drives the spike downward to its limit until stopped by the head 10. In its downward course the auxiliary spike passes down easily through the channel 2 and merely has to resist the wood at 12^a. When the point 9 has reached the lower end 8 of the channel, as in Figs. 4 and 5, the further hammering on the head 10 causes the point to break through the slit 5 and to force the lower end of spike 1 to spread, so that when the auxiliary spike 4 is driven down to its limit the lower end of spike 1 is separated and forms the winged parts 13 and 14 as shown in Fig. 6.

As can be readily seen the winged parts 13 and 14 form a resisting means to any upward force tending to pull the spike 1 out of the tie. The bottom of channel 2 is slanted at an angle to the longitudinal axis of the spike in a manner that will give the body of the spike the necessary strength and at the same time bring the point 9 to the proper position, as in Fig. 5, for spreading the lower end of the bolt.

It will be evident from the above that the aforesaid object of providing a railway spike that will prevent loosening of the same and thereby preventing derailments is

thoroughly accomplished, and that the same is a simple, inexpensive and conveniently operated device.

Having thus described my invention, I
5 claim:—

1. A railway spike and an auxiliary spike, said railway spike having a channel cut in its side and a slit extending from the end of said channel to the extremity of the
10 spike, said slit arranged to allow said auxiliary spike to spread said slitted parts when driven down through said channel.

2. A railway spike having a channel cut in its side and a slit extending from the
15 end of said channel to the lower edge of the spike, said slit being transversely to the cutting edge of said spike.

3. In combination with a railway spike, an auxiliary spike having a diamond-

shaped point in line with the side of said 20 auxiliary spike.

4. The combination of a railway spike and an auxiliary spike, said railway spike having a channel cut in its side and slanted to the longitudinal axis of the railway 25 spike, said channel being adapted to fit the auxiliary spike and a slit extending from the end of said channel to the lower edge of the railway spike, said auxiliary spike spreading the slitted parts when driven 30 down through said channel to its limit.

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

RODERICK BEGG.

Witnesses:

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