No. 884,122. PATENTED APR. 7, 1908.

D. N. BATES, S. E. CLAPP & L. E. BOOTH.

STAKE TIE FOR RAILWAY CARS.

APPLICATION FILED OCT. 4, 1907.

Fig. 1.

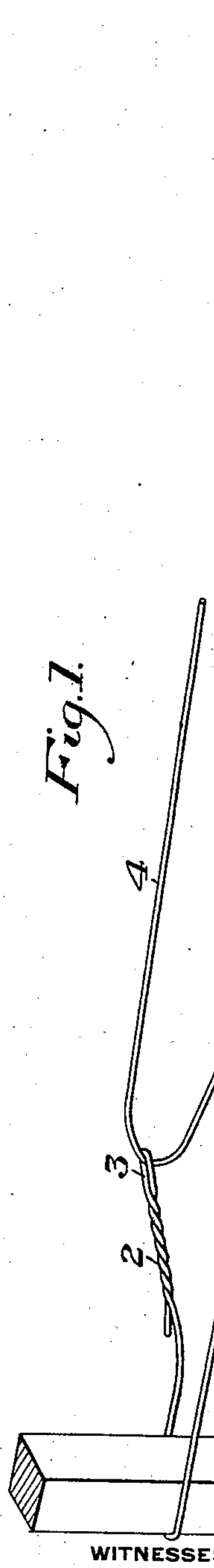


Fig. 3.

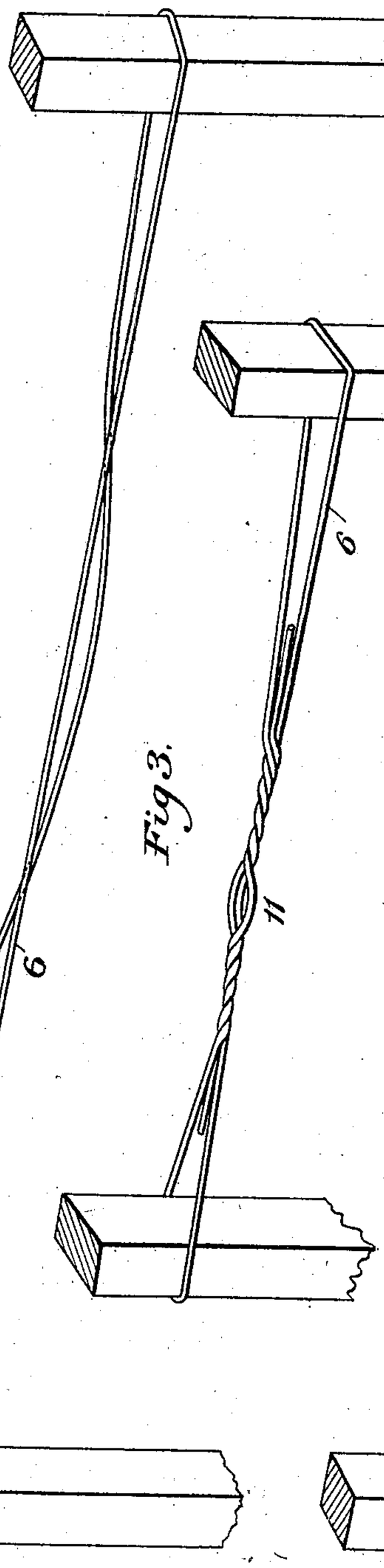
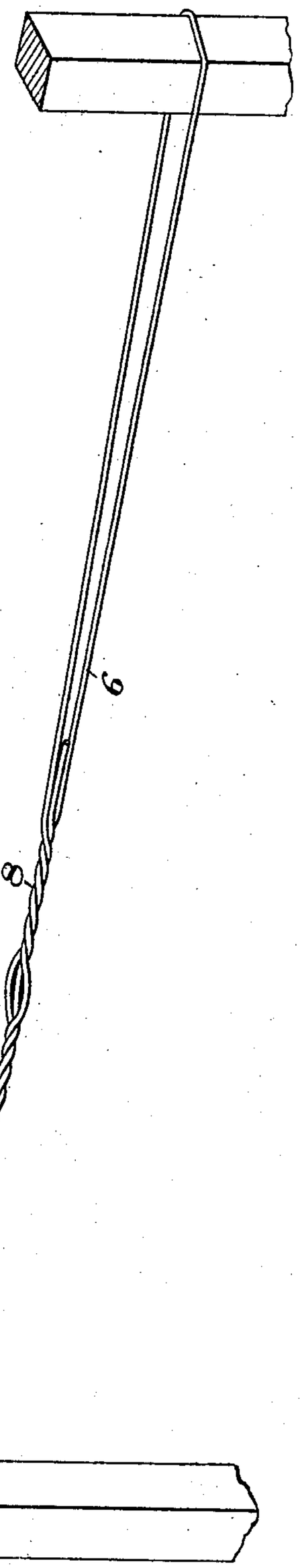


Fig. 2.



WITNESSES

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UNITED STATES PATENT OFFICE.

DANIEL N. BATES, SAMUEL E. CLAPP, AND LOUIS E. BOOTH, OF WORCESTER, MASSACHUSETTS, ASSIGNORS TO AMERICAN STEEL & WIRE COMPANY, OF CHICAGO, ILLINOIS, A CORPORATION OF NEW JERSEY.

STAKE-TIE FOR RAILWAY-CARS.

No. 884,122. Specification of Letters Patent. Patented April 7, 1908.

Application filed October 4, 1907. Serial No. 395,927.

To all whom it may concern:

Be it known that we, DANIEL N. BATES, SAMUEL E. CLAPP, and LOUIS E. BOOTH, all of Worcester, Worcester county, Massachusetts, have invented a new and useful Stake-Tie for Railway-Cars, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification, in which:

Figure 1 is a perspective view illustrating the manner of forming the tie; Fig. 2 is a similar view showing the completed tie; and Fig. 3 is a perspective view showing a modification.

Our invention has relation to stake ties for railway cars, and is designed to provide a simple, cheap and secure tie of this character, which can be quickly applied and fastened.

In the preferred form of our invention, we form a tie by taking a piece of wire of suitable length and passing it around the opposite side stakes of cars in the manner shown in Fig. 1. One end 2 of this wire is twisted upon itself to form an eye or loop 3, through which the opposite end portion 4 is loosely passed and is bent back upon itself. The three strands of the wire, consisting of the backwardly bent end portion 4, the part 5, and the main wires 6, are then caught in a suitable twisting device and intertwisted in the manner shown in Fig. 2, the twisting involving all three strands. The twister catches the strands at an intermediate portion, so that the two twists 7 and 8 in opposite directions are formed.

The tie may be tightly stretched before twisting by the application of any well known or suitable stretching device.

A tie can be formed in this manner very quickly and cheaply, and forms a secure and effective means for tying the stakes, since the tie wires are sufficiently flexible to adapt themselves to the contour of the load over which they are passed. The manner in which the ends are twisted forms a secure joint, which can not work loose or become undone. The tie is usually released by cutting the wires.

In the modification shown in Fig. 3, the wire is looped around the two stakes and its free ends are carried by each other and intertwisted with the main strand 6, as shown at 11.

Various changes may be made in the details of construction and arrangement without departing from the spirit and scope of our invention, since

What we claim is:

1. A stake tie for railway cars, consisting of a piece of wire looped around opposite stakes and having one end portion passed once only through an eye on the opposite end portion and intertwisted with the main strand of the wire, substantially as described.

2. A stake tie consisting of a piece of wire looped around opposite stakes and having one end passed through a loop or eye on the other end and bent backwardly upon itself, the two branches of said end portion being intertwisted with the main strand of the tie, substantially as described.

3. A tie consisting of a piece of wire having a loop or eye at one end portion, and having its other end portion inserted through said loop or eye and intertwisted with itself and with the main strand of the tie, substantially as described.

4. A stake tie for railway cars, consisting of a single piece of wire passing around the stakes to be tied, the free ends of the wire being brought together between the stakes and at least one of them intertwisted with the main strand of the wire; substantially as described.

In testimony whereof, we have hereunto set our hands.

DANIEL N. BATES.
SAMUEL E. CLAPP.
LOUIS E. BOOTH.

Witnesses:
ARTHUR D. FISKE,
WM. A. BACON.