(No Model.)

# A. S. HARDMAN.

## TIE PLATE AND SPIKE LOCK.

No. 562,960. Patented June 30, 1896.

FIG. 1.

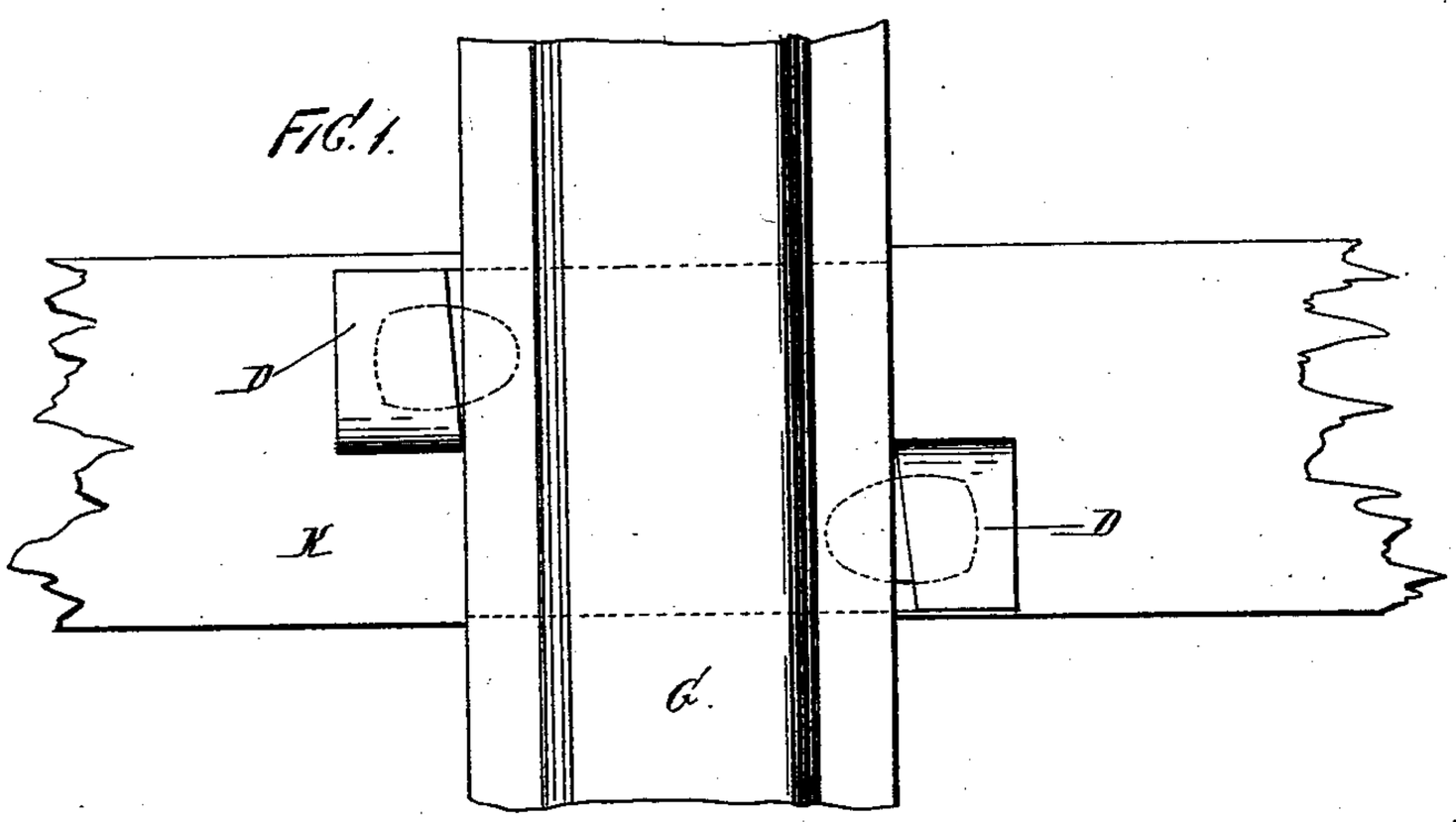



FIG. 2.

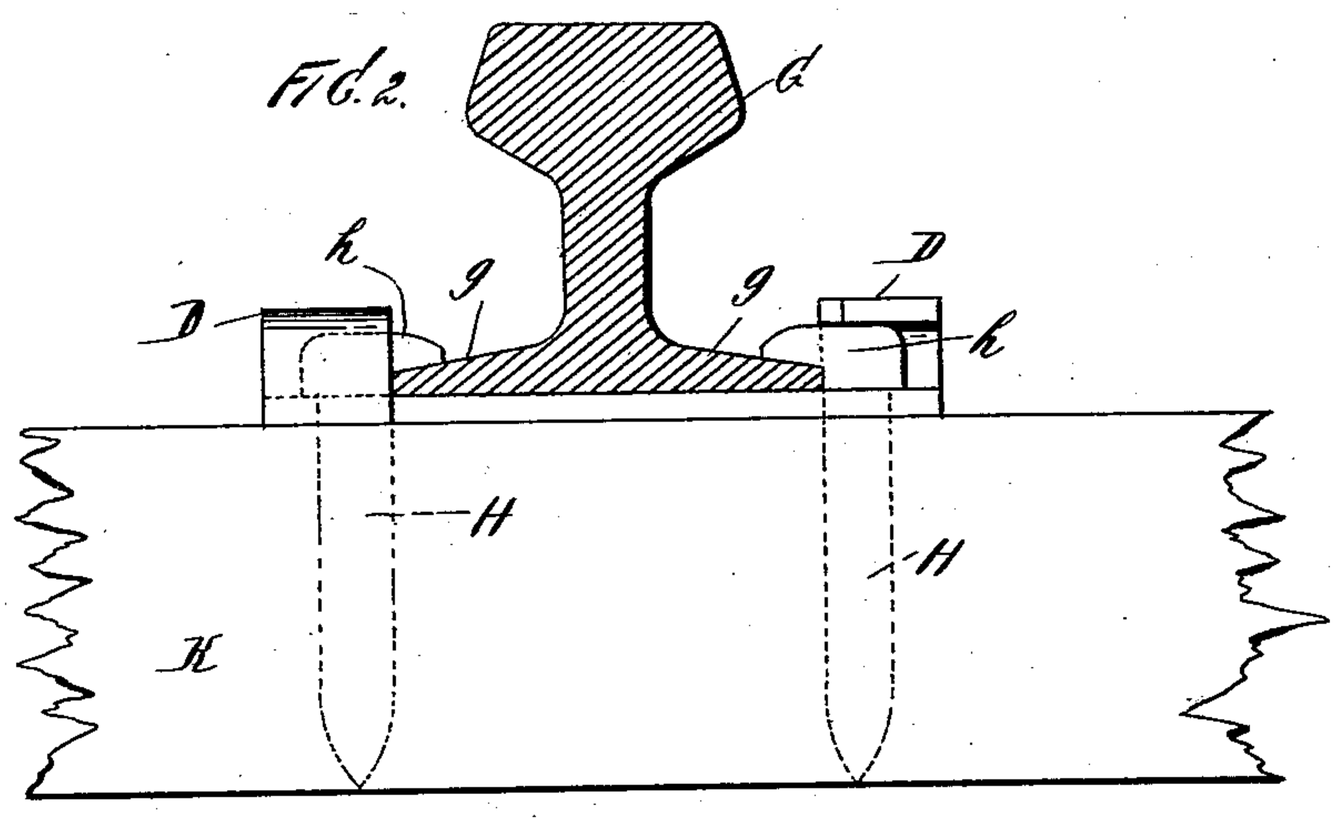
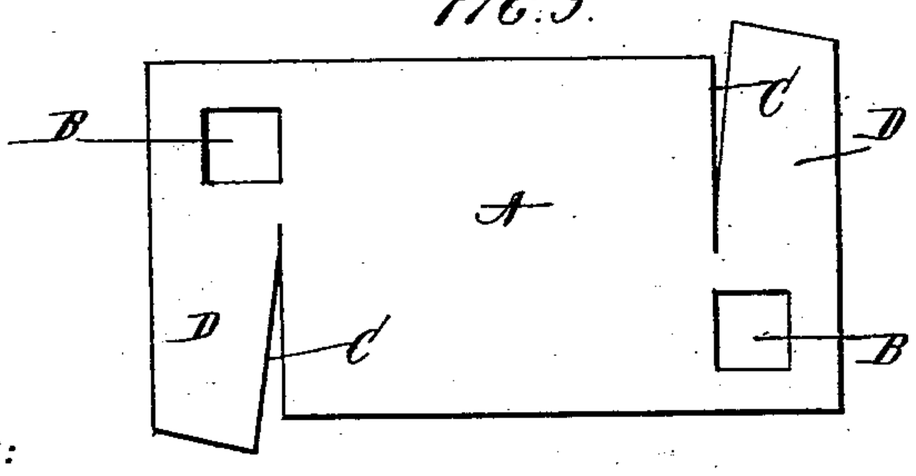



FIG. 3.




WITNESSES:

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# UNITED STATES PATENT OFFICE.

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## TIE-PLATE AND SPIKE-LOCK.

SPECIFICATION forming part of Letters Patent No. 562,960, dated June 30, 1896.

Application filed November 25, 1895. Serial No. 570,148. (No model.)

*To all whom it may concern:*

Be it known that I, ASA S. HARDMAN, a citizen of the United States, and a resident of Leesburg, in the county of Lake and State of Florida, have invented certain new and useful Improvements in Tie-Plates and Spike-Locks, of which the following is a specification, reference being had to the accompanying drawings, forming a part thereof, in which similar letters of reference indicate corresponding parts.

This invention relates to tie-plates for railway rails and ties; and the object thereof is to provide an improved device of this class with which is connected means for securing or holding the spikes in place; and with this and other objects in view the invention consists in the construction, combination, and arrangement of parts hereinafter described and claimed.

The invention is fully disclosed in the following specification, of which the accompanying drawings form a part, in which—

Figure 1 is a plan view of a section of a railway-rail and a tie, showing also my improvement; Fig. 2, a side view of the tie and a section of the rail, showing also my improved tie-plate; and Fig. 3 is a plan view of the plate.

In the practice of my invention I provide a tie-plate A, which is preferably of the form shown in Fig. 3, and which is provided with spike-holes B in its diagonally opposite corners.

The plate A is preferably oblong and rectangular in form and is composed of steel, wrought-iron, or other preferred material, and each end thereof adjacent to the spike-holes B is separated from the main body of the plate by narrow slits or slots C, said slits extending from the sides of the plate about two-thirds of the way across the same and approximately to the spike-holes. The end portions D, formed by the slots C, are preferably projected slightly beyond the sides of the plate, and in practice, after the spikes have been driven into position, these end portions or wings are curved or bent up over the heads of said spikes, so as to securely hold them in place.

A section of a railway-rail is shown at G, and this rail is provided with the usual base-flanges *g*, and ordinary railway-spikes H, provided with heads *h*, which overlap said flanges, are employed.

I have also shown a section of a tie K, and the operation will be readily understood from the foregoing description when taken in connection with the accompanying drawings.

The tie-plate is placed upon the tie in the usual manner and the rail G extends transversely across the same and the spikes are driven into position so that the heads *h* thereof everlap the base-flanges *g* of the rail, after which the end pieces or wings D are bent upwardly and over the heads of the spikes, as clearly shown in Figs. 1 and 2, and in this position they hold the spikes in place and prevent the accidental removal thereof or prevent them from working out, which frequently occurs when no locking devices are employed in connection therewith.

It will thus be seen that I combine a tie-plate and a locking device for the spikes, and that my improvement is simple in construction and operation and perfectly adapted to accomplish the result for which it is intended.

My invention is not limited to the exact form, construction, and arrangement of the various parts as herein shown and described; and I therefore reserve the right to make all such alterations therein and modifications thereof as fairly come within the scope of invention.

Having fully described my invention, its construction and operation, I claim and desire to secure by Letters Patent—

1. A tie-plate, provided with spike-holes one of which is formed in each end thereof and said plate being also provided adjacent to said holes with projections or wings which are adapted to be bent or folded over the heads of the spikes, substantially as shown and described.

2. A tie-plate provided with spike-holes in its diagonally opposite corners, and the ends thereof adjacent to said holes being separated from the main body portion by narrow slits whereby wings or projections are formed, said wings or projections being adapted to be folded over the heads of the spikes, substantially as shown and described.

3. The combination with a railway-tie and a rail, of a tie-plate provided with spike-holes in its ends, and spikes provided with heads which overlap the flanges of the rail, said tie-plate being provided with integral wings or projections which are adapted to be folded over the heads of said spikes, substantially as shown and described.

4. A tie-plate, provided with spike-holes in its opposite ends and integral wings or projections, which are adapted to be folded over the heads of the spikes substantially as shown and described.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of the subscribing witnesses, this 13th day of November, 1895.

ASA S. HARDMAN.

Witnesses:
E. J. M. PADGETT,
C. P. LOVELL.