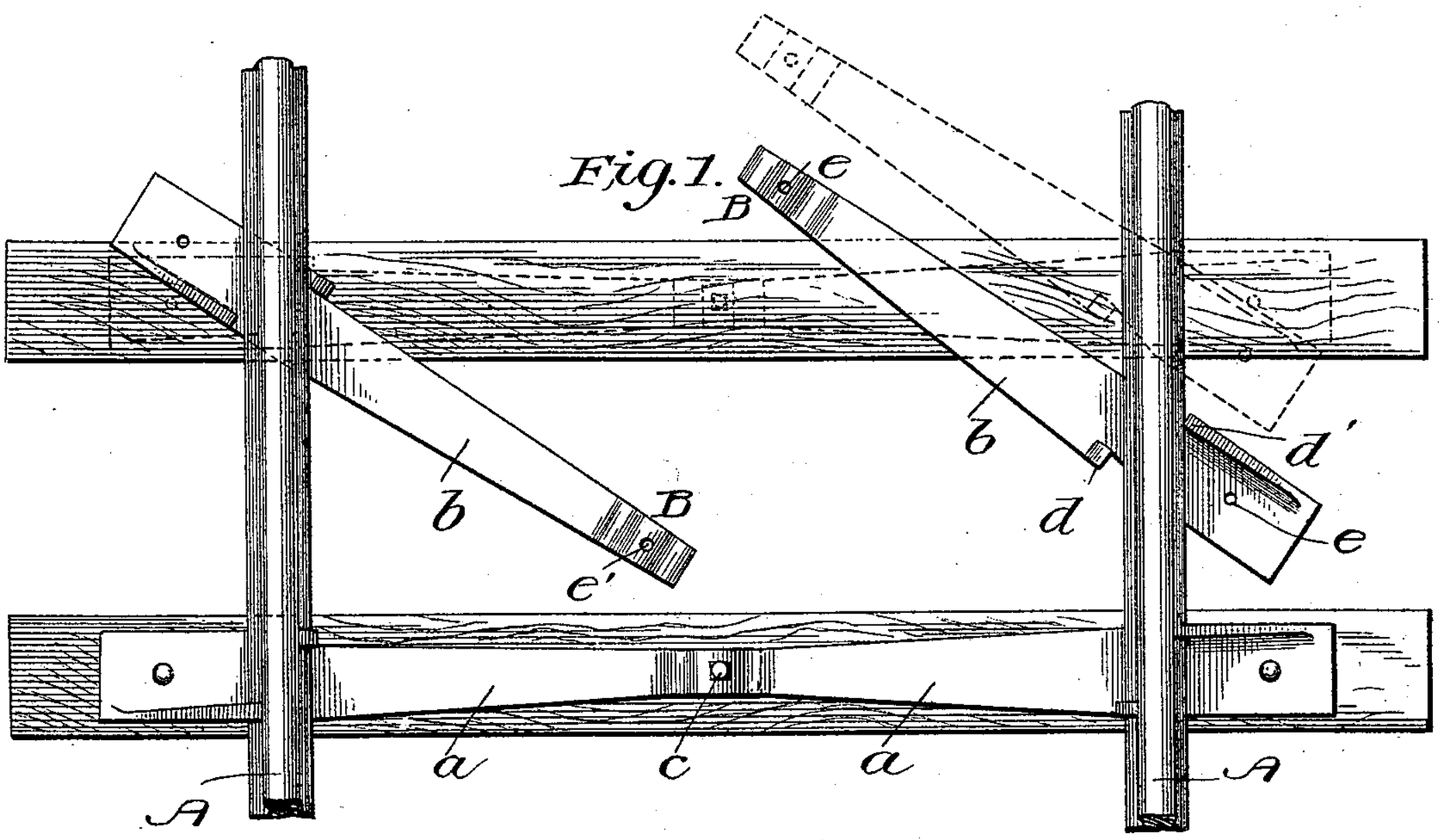
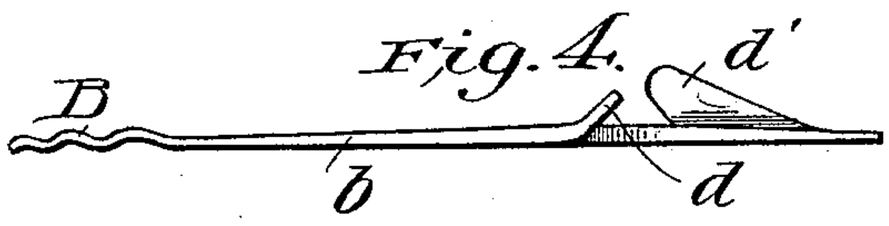
(No Model)

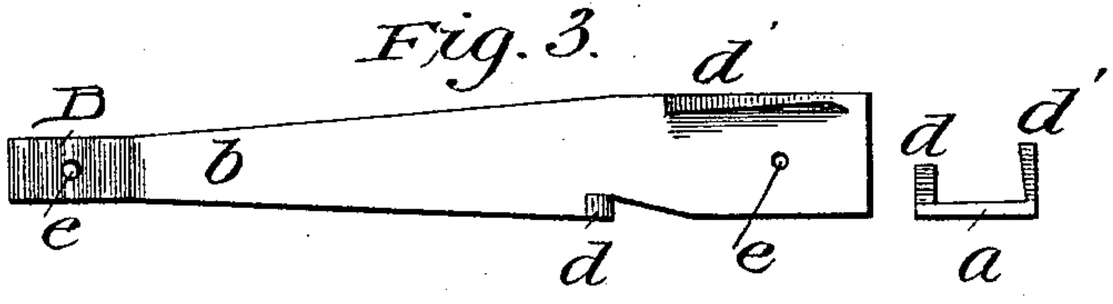
L. B. WEEKS.

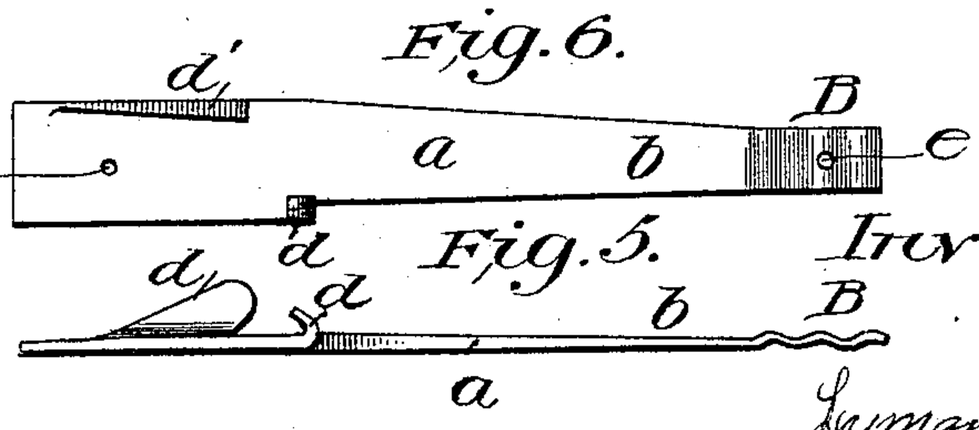
TIE PLATE AND RAIL CLAMP COMBINED.

No. 582,709. Patented May 18, 1897.









Witnesses.
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UNITED STATES PATENT OFFICE.

LYMAN B. WEEKS, OF GREENE, NEW YORK.

TIE-PLATE AND RAIL-CLAMP COMBINED.

SPECIFICATION forming part of Letters Patent No. 582,709, dated May 18, 1897.

Application filed February 18, 1897. Serial No. 624,033. (No model.)

To all whom it may concern:

Be it known that I, LYMAN B. WEEKS, a citizen of the United States, residing at Greene, in the county of Chenango and State of New York, have invented certain new and useful Improvements in a Tie-Plate and Rail-Clamp Combined; and I do 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.

My invention relates to certain new and useful improvements in railroad-tracks; and the object is to increase the safety and durability of the track.

To this end the novelty consists in the construction, combination, and arrangement of the same, as will be hereinafter more fully described, and particularly pointed out in the claims.

In the accompanying drawings the same reference-characters indicate the same parts of the invention.

Figure 1 is a top plan view of a section of my improved railroad-track, the lower half of the figure showing the rails locked by my improved tie-plate and rail-clamp, and the upper part of the figure showing the position of the tie-plate and rail-clamp while being removed or inserted in place. Fig. 2 is a transverse section of the track, taken between the ties. Fig. 3 is a top plan view of the combined tie-plate and rail-clamp detached from the rail and tie, and the small figure to the right is an end view of the contiguous end of said plate. Fig. 4 is a side elevation of my improved tie-plate and rail-clamp. Fig. 5 is a side elevation, and Fig. 6 is a top plan view, of a modification of the same.

a represents my improved integral tie-plate and rail-clamp, the body portion of which is formed of heavy metal where it comes in contact with and forms a seat for the rail A, and it then tapers gradually to each end, as shown in Fig. 4.

b represents the longer arm of the plate *a*, and its tapering end is provided with a series of transverse serrations or corrugations B and a vertical bolt-orifice *e* to receive a bolt or lag-screw *c*.

d represents an angular clamping-ear formed integral with the tie-plate *a* and adapted to engage the contiguous flange of the rail A.

d' represents an angular bracket also formed integral with the projecting end of the plate *a*, which engages the outside flange and web of the rail to form a combined clamp and brace, as shown.

e' represents an orifice in the outer end of the plate to receive the usual rail-spike to secure the plate to the tie.

Two of these plates *a* are used for each tie, and the manner of inserting them is shown in full lines in the upper part of Fig. 1, the plates being first passed under the bottom of the rail in a diagonal manner, so that the bottom of the rail will extend between the ear *d* and the bracket *d'*, and the longer arm *b* used as a lever to bring the inner corrugated ends B B into line on top of the tie, and the bolt or lag-screw *c* inserted through the orifices *e* *e* in the contiguous corrugated overlapping ends to secure the same together and at the same time fix them to the tie.

A very important feature of the construction of a railroad-track after the above manner is the fact that no gaging of the rails is necessary, the plates *a* being formed of a standard size. The proper gage of the rails is uniformly maintained by the mere operation of securing each pair of the plates together.

The advantage of this form of tie-plate on curves is very apparent when it is seen that the outer rail, which receives the greater strain, is very effectually braced from its flange clear up to the tread by the contiguous face of the bracket *d'*, which is also reinforced by the clamping action of ear *d* exerted on the opposite flange of the rail.

Although I have specifically described the form and construction of my improved tie-plate and rail-clamp, I do not desire to be confined to the same, as it is evident that various modifications will readily suggest themselves to those skilled in this art without departing from the spirit of my invention.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. A combined tie-plate and rail-clamp for

railroad-rails tapering in each direction from the rail-seat, substantially as and for the purpose set forth.

2. A combined tie-plate and rail-clamp comprising the body portion *a* formed with the integral ear *d*, the integral brace *d'*, and the corrugated end B, substantially as and for the purpose set forth.

3. A combined tie-plate and rail-clamp, comprising the body portion *a* formed with the integral ear *d*, the integral tapering brace *d'*, the body portion *a* being thickest between said ear and brace and gradually tapering to the ends, one of which is formed with a series of transverse corrugations B and a vertical orifice *e*, substantially as and for the purpose set forth.

4. The combination with the rail A of the plate *a* formed with the integral ear *d* adapted to engage the contiguous flange of the rail, the integral oppositely-disposed clamp-bracket *d'* adapted to engage the opposite rail-flange and contiguous face of the web, and having one end formed with a series of transverse corrugations B, substantially as shown and described.

5. A combined tie-plate and rail-clamp composed of two sections, each provided with a rail-seat and having their adjacent corrugated ends interlocked and bolted together, substantially as and for the purpose set forth.

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

LYMAN B. WEEKS.

Witnesses:
SAML. A. DRURY,
E. F. CAVERLY.