No. 626,080. Patented May 30, 1899.

J. A. McCANN.

SAFETY RAIL BRACE.

(Application filed Jan. 29, 1898.)

(No Model.)

Fig. 1.

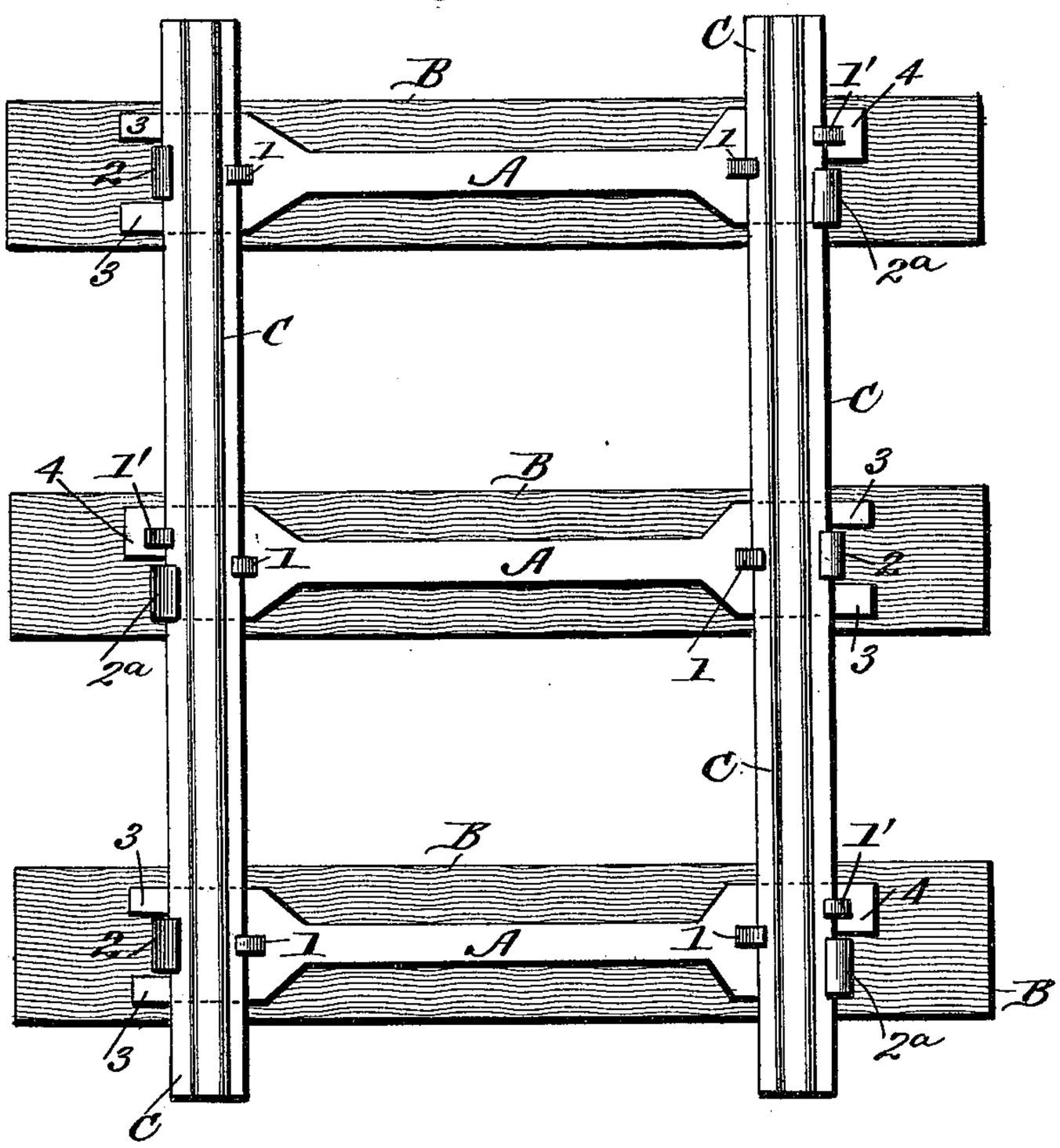
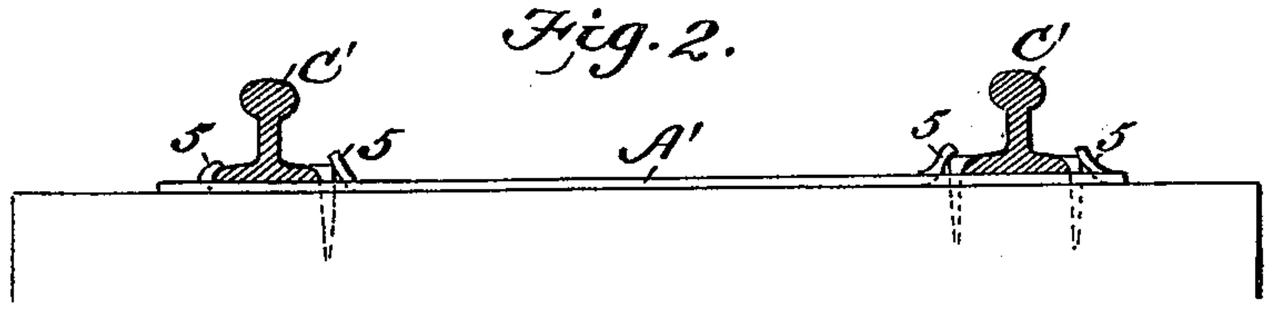


Fig. 2.



WITNESSES:

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SAFETY RAIL-BRACE.

SPECIFICATION forming part of Letters Patent No. 626,080, dated May 30, 1899.

Application filed January 29, 1898. Serial No. 668,481. (No model.)

To all whom it may concern:

Be it known that I, JOHN A. McCANN, a citizen of the United States, residing in Quincy, in the county of Adams and State of Illinois, have invented a new and useful Combined Rail-Brace and Tie-Plate, of which the following is a specification.

My invention relates to an improvement in rail-braces and tie-plates; and the objects of my improvement are, first, the maintenance of a perfect gage in a railroad-track; second, the preservation of the wooden ties upon which they rest by preventing the rails from cutting into them and to relieve the spikes of the outward pressure of the rails, dispensing with the necessity of drawing and redriving them to hold a gage; third, to prevent the wear of the rails by the lateral or swinging motion of the rolling-stock resulting from an imperfect gage to lessen the strain on the road-bed, generally resulting from the same cause; fourth, to reduce the wear and tear of the rolling-stock by preventing the lateral or swinging motion caused by an imperfect gage. I attain these objects by the form of brace and tie-plate illustrated in the accompanying drawings, in which—

Figure 1 is a plan view of a section of railroad-track in which my invention is shown practically applied. Fig. 2 is a vertical cross-section showing a flange of the brace and tie bearing upon a spike instead of a rail-flange.

As shown in Fig. 1, each steel brace and tie-plate A is laid flat upon a tie B, and the rails C rest on the broadened ends of the plates, to which they are rigidly clamped and thus secured, so as to remain exactly equidistant or maintain a perfect gage. The means for clamping the rails on their outer sides are flanges formed of integral portions of the flexible iron plates A. Thus each plate A has an opening for a spike for clamping the inner base-flanges of the opposite rails C, and thus holding the latter apart or preventing them moving toward each other. On one end of each plate A is a single central outer flange or claw 2 and on the opposite end a corresponding lateral flange 2^a. Each of the flanges 2 is formed in the transverse center of the end of plate A, leaving on opposite sides of said flange two tongues 3, which lie flat on the tie B. On the opposite end of the plate A there is but one such tongue 4, and the same has a hole for a spike 1′. It is apparent the flanges 2 and 2^a are formed by slitting the heads or ends of the plate A from the end inward and then turning up certain of the divided portions.

It will be further seen that by reversing each alternate plate A end for end both spikes 1′ and flange 2^a are available at each alternate point for holding the rails—*i. e.*, preventing the spreading apart. The broad flat form of the heads of the plates A prevent them being forced or embedded into the wooden ties B. The plates A are reduced in width between the rails C.

In Fig. 1 the flanges 2 2^a are shown in direct contact with the bases of the rails C; but in Fig. 2 the flanges 5 of a plate A′ are shown pressing upon the heads of spikes that pass through the plate into the tie and engage the bases of the rails C′.

In explanation of the manner of laying the track I will state that the flange of the plate holding the outside base of the rail is not quite three-fourths of an inch long, while the integral part of the plate punched out to receive the spike on the inside of the base of the rail is fully one inch removed from it, thus leaving ample space to fit upon the rail. In applying a rail one side is fitted to the rail between the ties, the inside spikes are removed from the opposite rail, and the plate fitted on when the rail is moved back to gage in grasp of the plate, which is slid onto the face of the tie and spiked and the integral parts bent over the heads of the spikes, so as to prevent their working out.

What I claim is—

The combination with the rails of the combined metal brace and tie composed of a flat plate having an integral tongue 5, formed of a bent-up portion of metal cut out of said tie, and a spike driven through the opening beneath the tongue and engaged by the latter as shown and described.

JOHN A. McCANN.

Witnesses:
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