No. 744,623. PATENTED NOV. 17, 1903.

C. A. SANBORN.

RAILWAY RAIL CLAMP.

APPLICATION FILED SEPT. 24, 1903.

NO MODEL.

Fig. 1.

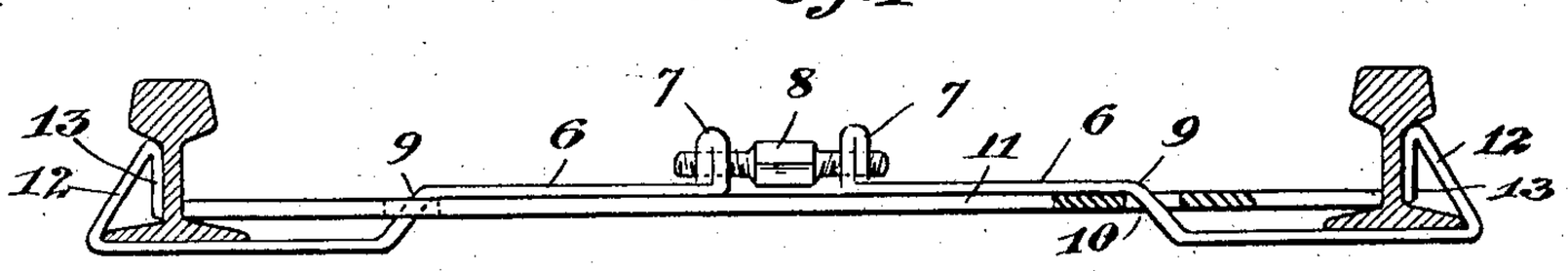


Fig. 2.

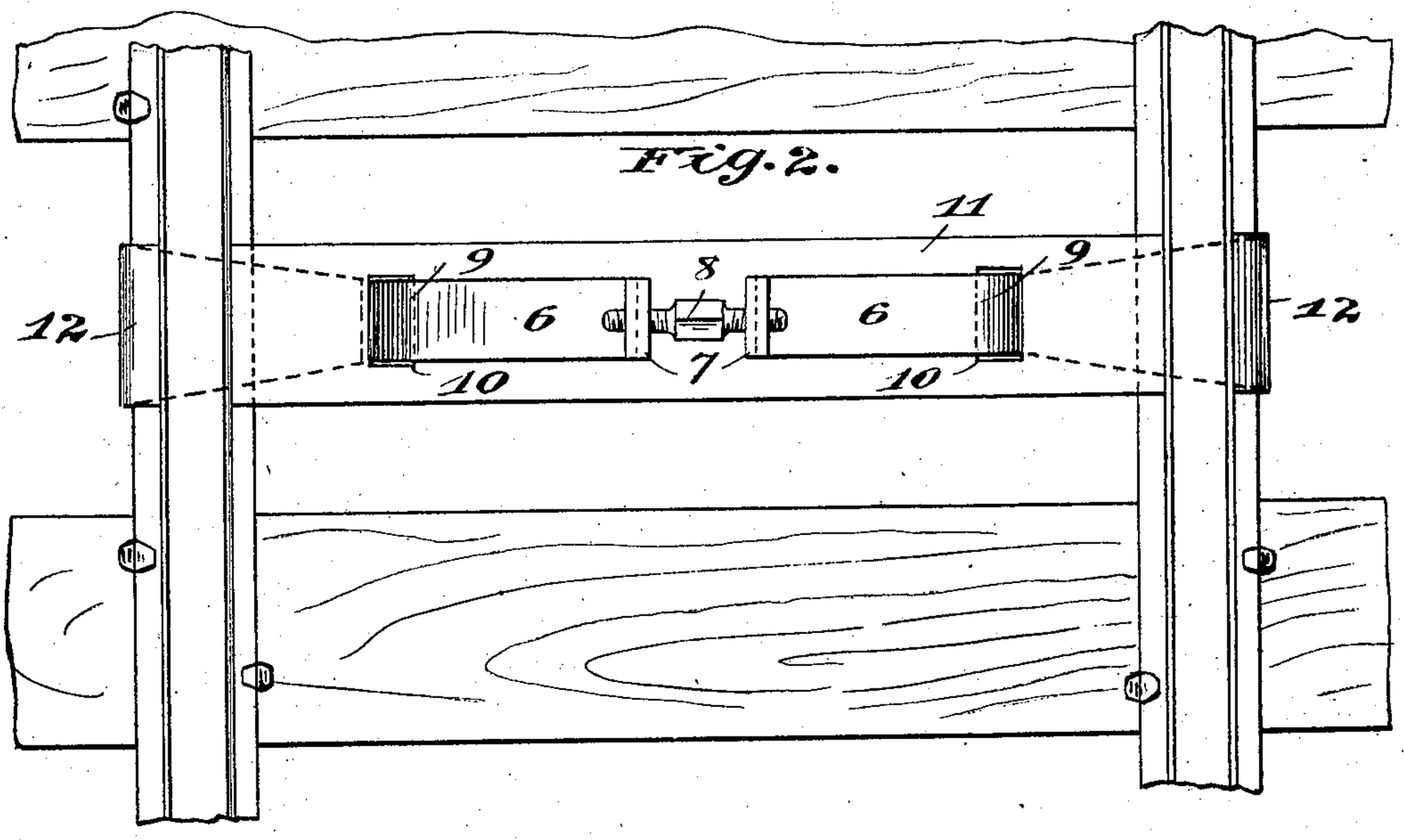


Fig. 3.

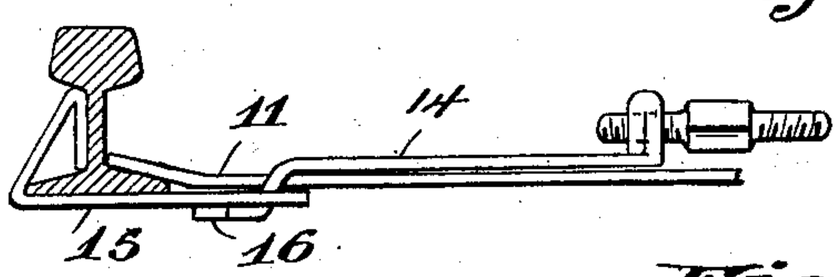


Fig. 4.

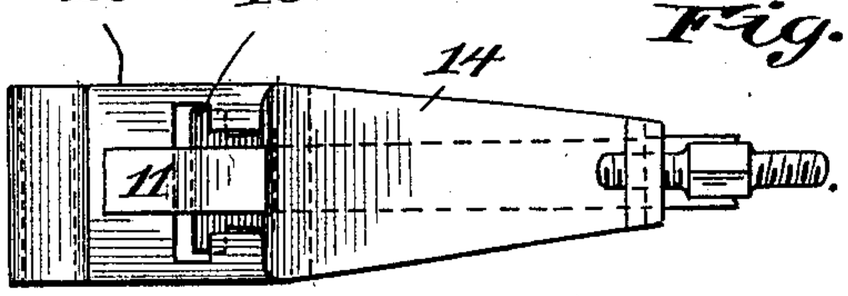


Fig. 5.

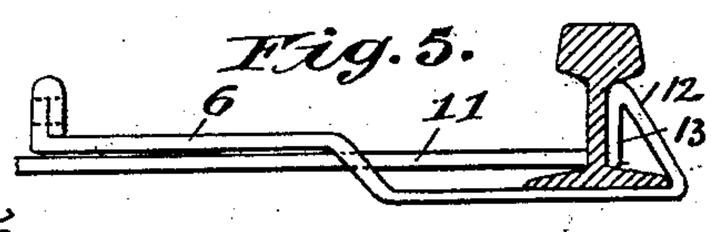
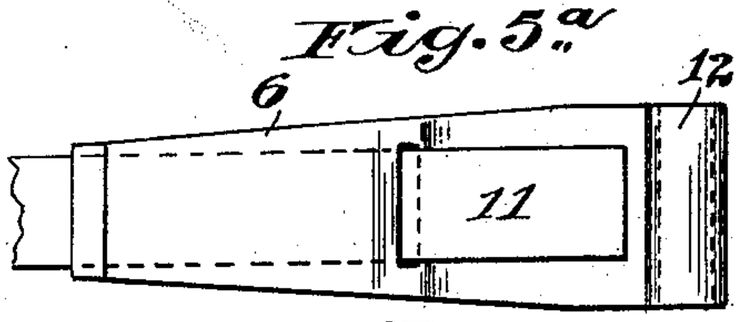


Fig. 5a.



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No. 744,623. Patented November 17, 1903.

UNITED STATES PATENT OFFICE.

CORA A. SANBORN, OF CHICAGO, ILLINOIS.

RAILWAY-RAIL CLAMP.

SPECIFICATION forming part of Letters Patent No. 744,623, dated November 17, 1903.

Application filed September 24, 1903. Serial No. 174,407. (No model.)

To all whom it may concern:

Be it known that I, CORA A. SANBORN, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Railway-Rail Clamps, of which the following is a specification.

This invention relates to means for securing railway-rails to prevent spreading and which means may form a permanent part of the structure and incorporated therewith when the track is laid or may be applied as a temporary fastening in the case of the accidental spreading of the rails caused by the condition of the ties. The device may also be utilized as a gage in the laying of track-rails.

In the accompanying drawings, Figure 1 is a sectional elevation of two railway-rails with the clamping device applied thereto, the latter showing in side view one end partly in section. Fig. 2 is a broken plan view showing the railway-rails and the upper surface of two ties with the clamping device applied between the ties. Fig. 3 shows a modified construction of the clamping members. Fig. 4 is a plan view of the same with the rails omitted, and Figs. 5 and 5ª are similar views of another modification.

The device comprises in the construction shown in Figs. 1 and 2 similarly-formed tie members having straight portions 6, terminating in upstanding threaded lugs 7, which are intended to be connected by a turnbuckle member 8 or other means for securing the ends of the ties. The middle portions of the tie members are offset, as shown at 9, the offset portions being adapted to extend through an aperture 10 in the tie-plate 11. The ties extend from the offset portions outwardly and are provided at their extremities with the upwardly-inclined extensions 12 and the vertical terminal portions 13. The clamping member 11 is in the form of a plate or bar and has its ends resting in position upon the upper surface of the base-flange of the rail, while the vertical terminal portions 13 of the ties bear against the outside of the web of the rail, the shoulder or bend resting under the head of the rail and the angle or offset of the tie embracing the outer edge of the flange or base. This device may be applied after the track is laid or it may be used as a gage in the laying of the track. The device will also be found useful in cases of emergency for holding the rails where by reason of the conditions of the bed or of the ties it is found impossible to prevent spreading of the rails by the drawing of the spikes; also, in cases of derailment where the rails are bent and a rail or rail-section is introduced temporarily. It is one object of the invention to so construct the device that it may be applied without tools and by unskilled labor.

In the form shown in Figs. 1 and 2 it requires only that the tie members be thrust beneath the rails from the outside and their ends entered through the slots in the tie-bar or plate 11 and the turnbuckle operated to cause the outer ends of the clamps to engage the outer side of the rail, while the bearing of the offset portions upon the tie-plate 11 causes the latter to clamp upon the inside of the base-flange, thus preventing the rails from spreading or from tilting. This construction comprises, therefore, necessarily only four parts—namely, the two tie members, the tie-plate, and a turnbuckle—for which of course any other suitable fastening or tightening means may be substituted, such as a plain bolt with a nut.

In Figs. 3 and 4 I have shown a slight modification in the construction, such modification consisting in making each of the tie members in two parts 14 15. In this construction the tie member 14 is slotted in its bend to permit the passage of the tie-plate 11 and the member 15 is provided with a transverse slot near its end to receive the terminal portion 16, so that these two parts are secured together by passing the bent end of the one through the aperture in the other, and then by applying the turnbuckle or other tightening means the several parts are tightly clamped upon the rails. This form of construction is more easily applied, but consists of a greater number of parts, and its operation is identical with that of the construction shown in Figs. 1 and 2.

A still further modification is shown in Figs. 5 and 5ª. In this construction the ties are apertured in their offset portions and the tie-plate passes through these apertures. This construction is perhaps simpler and stronger than either of the others, in that it employs

the minimum number of parts, which avoids weakening of the tie-plate; but it cannot be applied so conveniently when the rails are already secured at the proper distances apart upon the ties. If, however, the rails are slightly spread or can be slightly tipped, this form of construction can be as readily applied as any of the others and when applied operates in precisely the same manner.

Either of these devices will form an inexpensive part of the equipment carried upon a caboose or baggage-car.

I claim—

1. A railway-rail clamp comprising a member adapted to extend between the rails and to bear upon the inner base-flanges thereof, tie-members adapted to bear upon the outer side of the rail, to pass beneath the rails and to bear upon the first-named member between its ends, and means for tightening said tie members to clamp the parts, substantially as described.

2. A railway-rail clamp comprising in combination a plate or bar adapted to extend between the rails and to bear upon the inner sides thereof, tie members adapted to bear upon the outer sides of said rails and also upon the upper surface of said plate or bar between its ends, and means for tightening said tie members to clamp the parts, substantially as described.

3. A railway-rail clamp comprising a plate or bar adapted to extend between the webs of the rails and to bear upon the base-flanges thereof, tie members adapted to bear upon the outer sides of said rails, the inner ends of said ties having a bearing upon the upper surface of the plate or bar and a tightening means common to both of said ties whereby the several parts may be clamped, substantially as described.

4. In a railway-rail clamp, the combination of a plate or bar adapted to extend between the rails and to bear upon the inner base-flanges thereof, and tie members each consisting of two parts, one adapted to bear upon the outer side of the rail and to extend beneath its base, and the other adapted to bear upon the upper surface of the plate or bar and to engage the outer member with means for tightening said ties to clamp the parts together, substantially as described.

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Witnesses:

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