E. HUDSON.

METALLIC TIE.

APPLICATION FILED OCT. 7, 1907.

898,652. Patented Sept. 15, 1908.

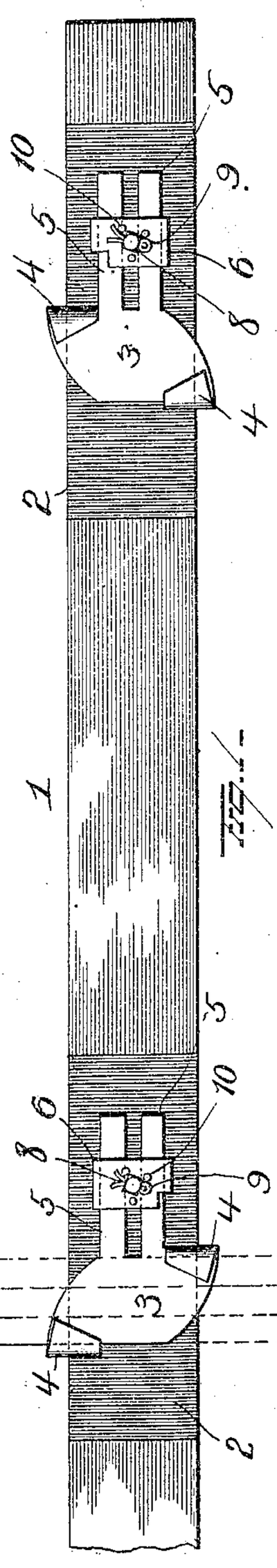

Fig. 1.

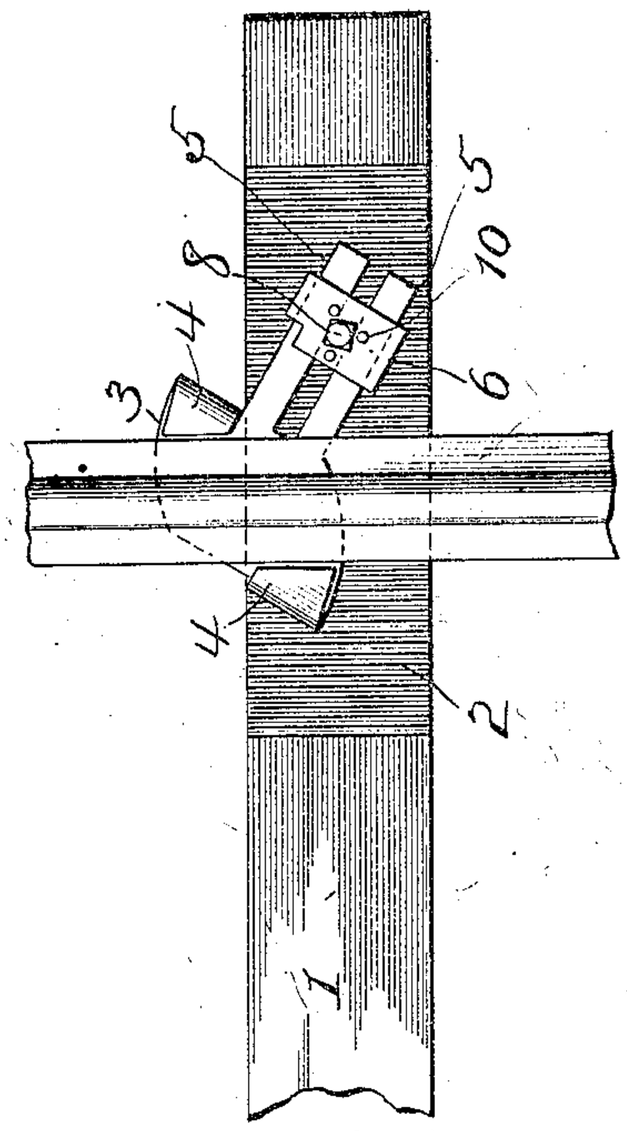

Fig. 2.

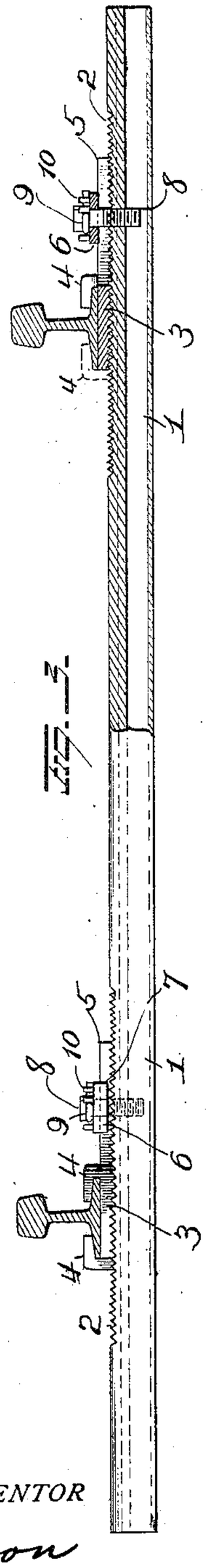

Fig. 3.

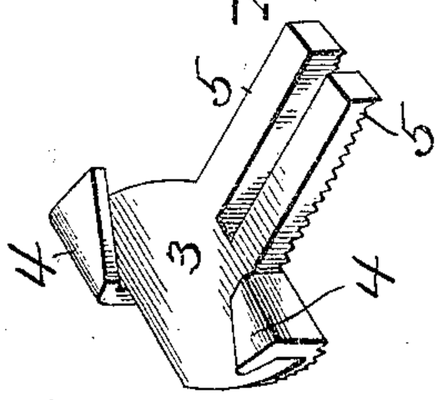

Fig. 4.

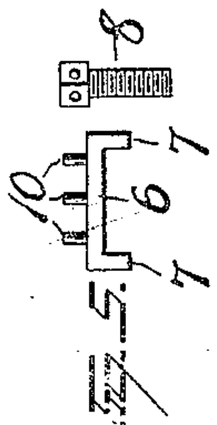

Fig. 5.

WITNESSES

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UNITED STATES PATENT OFFICE.

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METALLIC TIE.

No. 898,652. Specification of Letters Patent. Patented Sept. 15, 1908.

Application filed October 7, 1907. Serial No. 396,244.

To all whom it may concern:

Be it known that I, ELMER HUDSON, of Camp Point, in the county of Adams and State of Illinois, have invented certain new and useful Improvements in Metallic Ties; and I do hereby 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 an improvement in metallic ties and means for securing rails thereto, the object being to provide simple and efficient means for readily and quickly securing rails to metallic ties, the means being such that the rails can be readily and accurately lined and spaced and when finally secured to the ties, be held against the possibility of accidental spreading or displacement.

With these objects in view my invention consists in the parts and combinations of parts as will be more fully explained and pointed out in the claims.

In the accompanying drawings, Figure 1 is a view in plan of my improved tie and rail securing device. Fig. 2 is a plan view of a section of a tie showing the manner of applying the fastening device to the rail. Fig. 3 is a view in longitudinal section of a tie with the rails secured thereon. Fig. 4 is a view of one of the rail attaching clamps, and Fig. 5 is a view of the lock plate for the bolt.

1 represents a hollow metal tie the top side of which is reinforced or of extra thickness immediately under the corrugated portion 2 which extends preferably throughout the width of the tie, occupies an area of sufficient size lengthwise the tie, to permit the clamps to be moved lengthwise the ties in lining up and gaging the rails, and rest when seated and secured, wholly on the corrugated surfaces.

The clamps 3 are oblong in shape, and are provided at diagonally opposite ends with jaws 4, adapted when the clamp is turned to a position parallel with the rail, to rest over the lower flanges of the rail. When the clamps are turned at an angle to the rail, as shown in Fig. 2, there is ample space between the jaws 4 for the entrance of the rail, and the clamps are so placed in assembling the parts, but when the clamps are turned parallel to the rail, as shown in Fig. 1, the jaws overlap the lower flanges of the rail, and when the clamp is secured to the tie, effectually lock the rail in place. Each clamp is provided on its outer side with the outwardly extending parallel arms 5, the latter being of sufficient length to permit of the necessary adjustments and movements of the clamp with relation to the stay bolts which secure the clamps in place.

Mounted on the arms 5 is the retaining plate 6, provided at its ends with flanges 7 which latter rest against the outer faces of the arms 5 of the clamp 3. This retaining plate is provided with a hole for the passage of the stay bolt 8, the latter engaging threads formed in an opening in the tie, and the head of the bolt is provided with an opening for the pin 9, which latter when in place projects at both ends from the head of the bolt, the plate 6 being provided with a series of upwardly projecting lugs 10 which are in the path of the ends of the pin 9, and operate to prevent the bolt from turning and consequently loosening up the clamp. The pin 9 is preferably in the form of a split pin, the ends of which may be bent apart after it has been placed in position, thereby locking it in place.

The lower face of clamp 3 and its integral arms 5 are corrugated, which corrugations mesh with the corrugations in the tie, so that when the clamps are placed parallel with the rails the corrugations intermesh and the weight of the parts is sufficient to prevent the clamp from turning, and when the latter is locked in place by the stay bolt, the rails will be held in perfect alinement, and against the possibility of spreading.

In assembling the parts, the clamps are turned, as in Fig. 2, to permit the rails to be seated therein, and are then turned to engage the flanges of the rails. After the rails have been alined and gaged they are then locked by the bolts.

It is evident that many slight changes might be resorted to in the relative arrangement of the parts shown and described without departing from the spirit and scope of my invention hence I would have it understood that I do not wish to confine myself to the exact construction shown and described, but,

Having fully described my invention what I claim as new and desire to secure by Letters-Patent, is:—

1. The combination with a metal tie, of a clamping plate freely movable under a rail

on the tie, said plate having jaws to engage the respective flanges of the rail, a bolt pivotally connecting the plate with the tie at one side of the rail, and means engaging said bolt and the clamping plate for locking the latter in normal position.

2. The combination with a metal tie serrated on its upper face near its ends, of clamping plates having serrated under faces and provided with upwardly projecting jaws adapted to overlap the base flanges of a rail, each clamping plate being freely movable under the rail and having a lateral extension, a single bolt for each plate passing through the lateral extension of each plate and constituting a pivotal connection for the clamping plate with the tie at a point laterally removed from the rail, and means on the upper end of said bolt engaging the lateral extension of the plate.

3. The combination with a metal tie having transverse serrations near its ends, of a clamping plate comprising a body having upwardly projecting diagonally disposed jaws and integral outwardly projecting arms, a single bolt passing between said arms and entering the tie, said bolt constituting a pivotal connection of the plate with the tie, the said body and arms being serrated on their under faces, and a retaining plate engaging the outer sides of the arms and through which the bolt passes.

4. The combination with a metal tie having transverse serrations near its ends, of clamping plates each comprising a body having upwardly projecting diagonally disposed jaws and an integral outwardly projecting member, the said body and member being serrated on their lower faces, a retaining plate having end flanges which overhang the sides of the outwardly projecting member and upwardly projecting lugs, a stay bolt passing through said plate and member and screwed into the tie and a pin passing through the head of the stay bolt.

In testimony whereof, I have signed this specification in the presence of two subscribing witnesses.

ELMER HUDSON.

Witnesses:
J. E. McCarty,
Chas. V. Gay.