

J. F. ROBINSON.
METALLIC TIE AND RAIL FASTENING DEVICE.
APPLICATION FILED MAY 4, 1911.

1,000,845.

Patented Aug. 15, 1911.

2 SHEETS—SHEET 1.

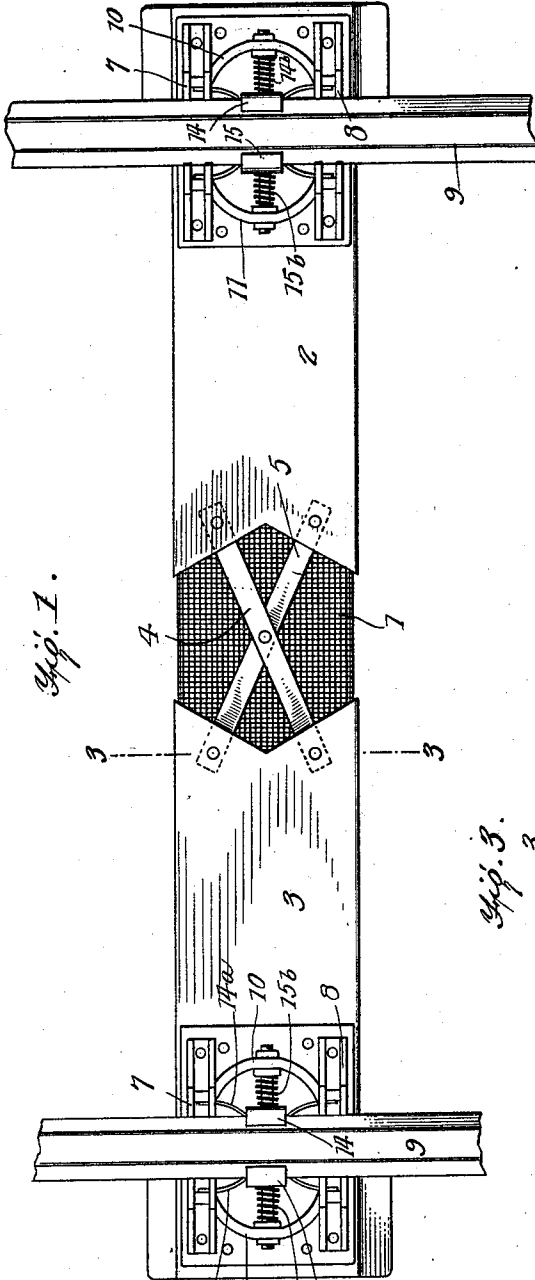


Fig. 1.

Fig. 3.

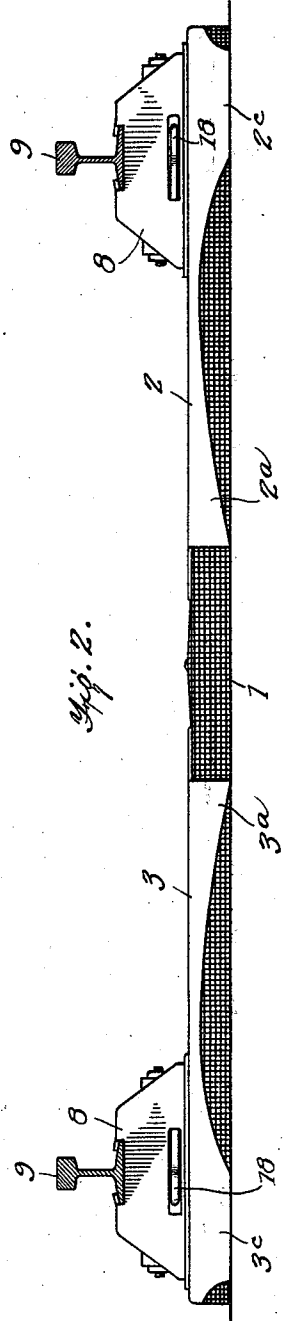
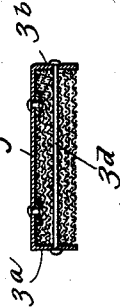


Fig. 2.

WITNESSES

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Fig. 4.

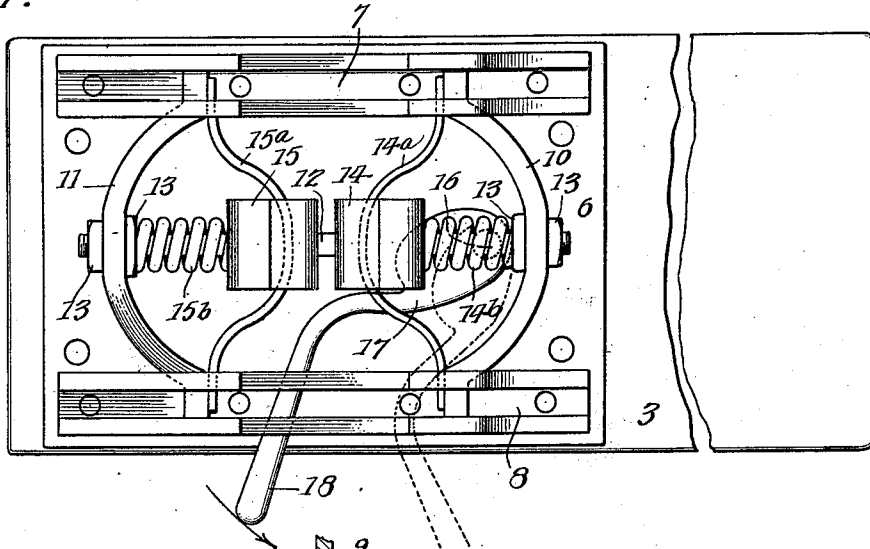


Fig. 5.

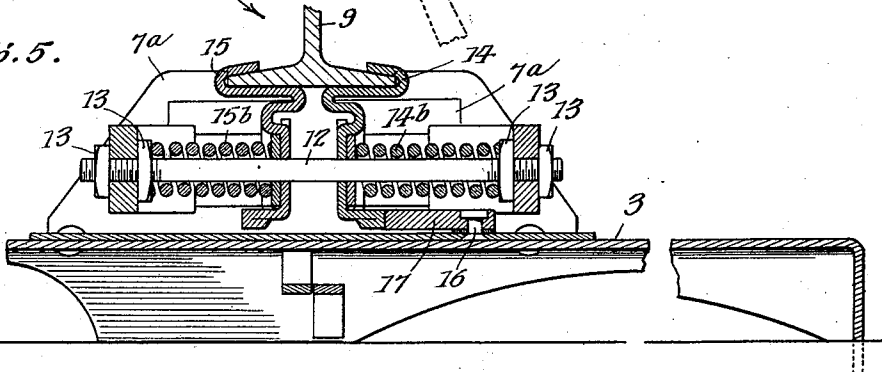
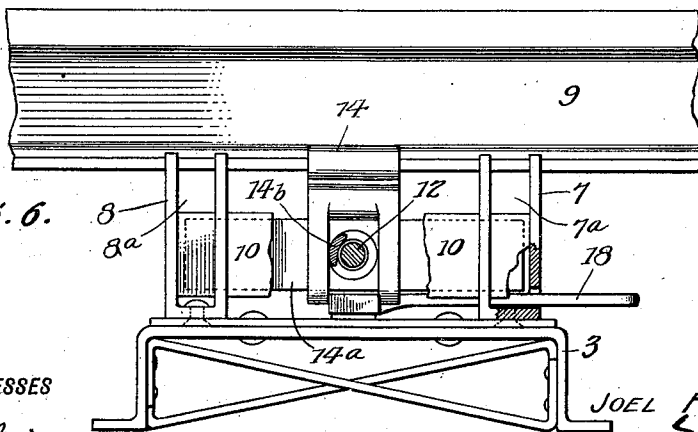


Fig. 6.



WITNESSES

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UNITED STATES PATENT OFFICE.

JOEL F. ROBINSON, OF ATLANTA, GEORGIA.

METALLIC TIE AND RAIL-FASTENING DEVICE.

1,000,845.

Specification of Letters Patent. Patented Aug. 15, 1911.

Application filed May 4, 1911. Serial No. 624,937.

To all whom it may concern:

Be it known that I, JOEL F. ROBINSON, a citizen of the United States, and a resident of Atlanta, in the county of Fulton and State of Georgia, have made certain new and useful Improvements in Metallic Ties and Rail-Fastening Devices, of which the following is a specification.

My invention relates to improvements in ties and rail fastening devices and it consists in the combinations, constructions and arrangements herein described and claimed.

An object of my invention is to provide a tie which shall form a resilient bearing surface thereby absorbing shocks.

A further object of my invention is to provide a tie which will prevent the spreading of the rails and the accidents consequent thereto.

A further object of my invention is to provide a spring rail fastening device which will hold the rail in a fixed position, thereby doing away with the usual method of fastening rails by spikes.

Other objects and advantages will appear in the following specification, and the novel features of the device will be particularly pointed out in the appended claims.

Figure 1 is a top plan view, Fig. 2 is a side view of my invention as in use, Fig. 3 is a detail section on about line 3—3 of Fig. 1, Fig. 4 is an enlarged top plan view, the rail being removed, Fig. 5 is a sectional view drawn transversely through the rail, and Fig. 6 is an end view partly broken away.

In carrying out my invention I provide a tie of the shape best shown in Figs. 1, 2 and 3. The body portion of the tie is formed of folded layers of wire netting 1. At each end of the tie is a metallic plate such as those shown at 2 and 3 in Fig. 1. A description of one of these plates will suffice since both of them are alike. The plate 3 is provided with a downwardly turned flange 3^a on one side and a similar flange 3^b on the other side, see Fig. 3. The end of the plate also has a flange 3^c and a corresponding flange, not shown, on the opposite side of the plate. The corresponding flanges on the opposite side plates are secured together by rods 3^d which pass through the netting thereby holding the latter in place. The plates 3 and 2 are separated as shown in Fig. 1, but are joined by cross braces 4 and 5 respectively.

The rail fastening device consists of a base 6 upon which is mounted a pair of end sup-

ports such as those shown at 7 and 8. These end supports are notched to receive the rail 9. Each end support is provided with a cut-away portion like that shown at 7^a. The ends of a pair of yokes 10 and 11 extend in the cut-away portions of the supports 7 and 8. A rod 12 extends through the central portion of the yokes and is provided with nuts 13 to space the yokes apart.

Slidably disposed on the rod 12 are the flanged members 14 and 15 which are designed to grip the rail base as shown in Fig. 5. These members are normally held against the rail base by the semi-elliptical springs 14^a and 15^a respectively, each of these springs being reinforced by the coil springs 14^b and 15^b which surround the rod 12.

Pivotally secured to the base by means of a pivot pin 16 is a cam member 17 which is provided with a handle 18.

From the foregoing description of the various parts of the device, the operation thereof may be readily understood.

In mounting the rail the members 14 and 15 are forced backwardly until the rail base can enter between their upper flanges which are then released to engage the base. The tension on the rail gripping members 14 and 15 may be increased by turning the nuts 13. The rail may be positively locked by the gripping members when the eccentric locking member 17 is shifted into position shown in full line, in Fig. 4. Tension may be released when the cam is swung into the dotted line position.

The use of the metal tie prevents the spreading of the rails. The base 6 of the locking device is designed to be secured to the tie by means of bolts or rivets or any other suitable fastening means.

The means for locking the tie prevents the danger of wrecks by persons who wish to cause an accident because the rails have to be jacked up before they can be released.

Instead of using the metallic tie by itself, it may be used as a covering for a wooden tie thereby preventing the latter from rotting and thus increasing the life of the tie.

I claim:

1. In a rail fastening device, a base, end supports carried thereby, a pair of movable clamping members arranged to engage the base of the rail and springs for maintaining said clamping members in position.

2. In a rail fastening device, a base, rail supporting members carried thereby, a pair

of rail clamping members disposed between said rail supporting members, springs for maintaining said rail clamping members in engagement with the rail and a locking device for locking said members in position.

3. In a rail fastening device, a base, rail supports carried thereby, a pair of movable clamping members disposed between said rail supports and adapted to engage the base of the rail on opposite sides thereof, a pair of yokes, a pair of semi-elliptical springs for

holding said clamping members in engagement with said rail, the ends of said springs bearing against the ends of said yokes, and a common connecting rod for said yokes, said rod serving as a guide rod for said movable clamping members.

JOEL F. ROBINSON.

Witnesses:

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."
