No. 847,154. PATENTED MAR. 12, 1907.

J. BERGER.

METALLIC RAILWAY TIE.

APPLICATION FILED MAY 29, 1906.

Fig. 1.

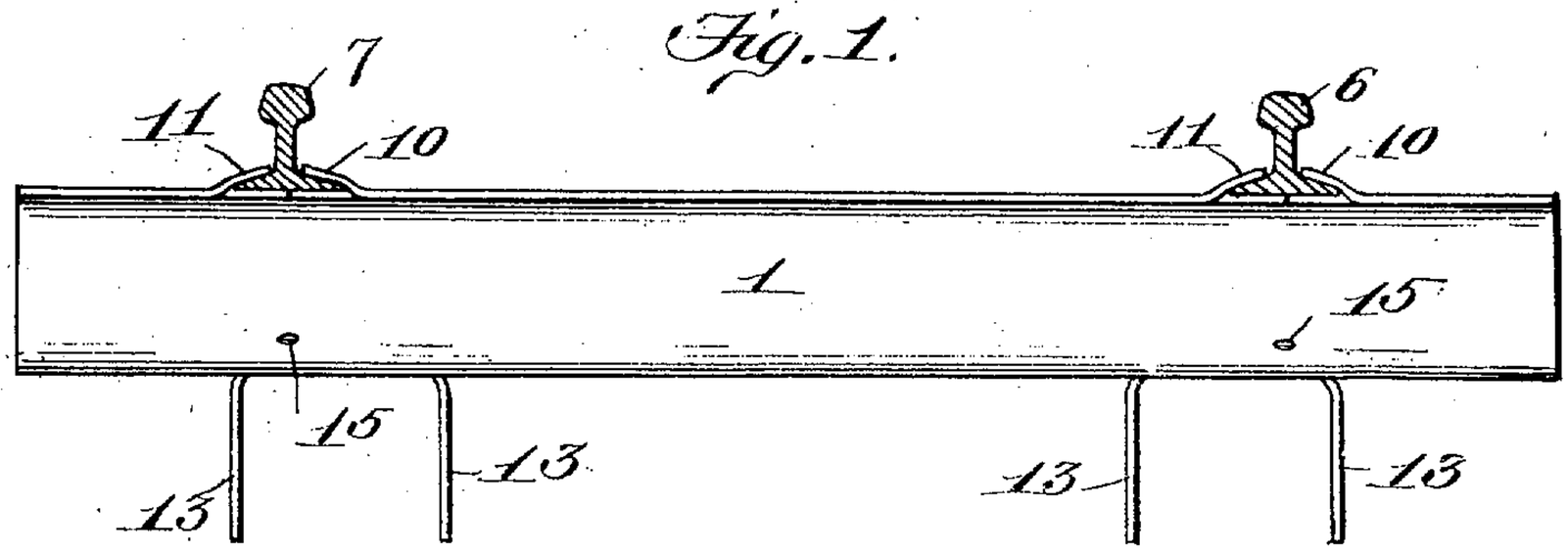


Fig. 2.

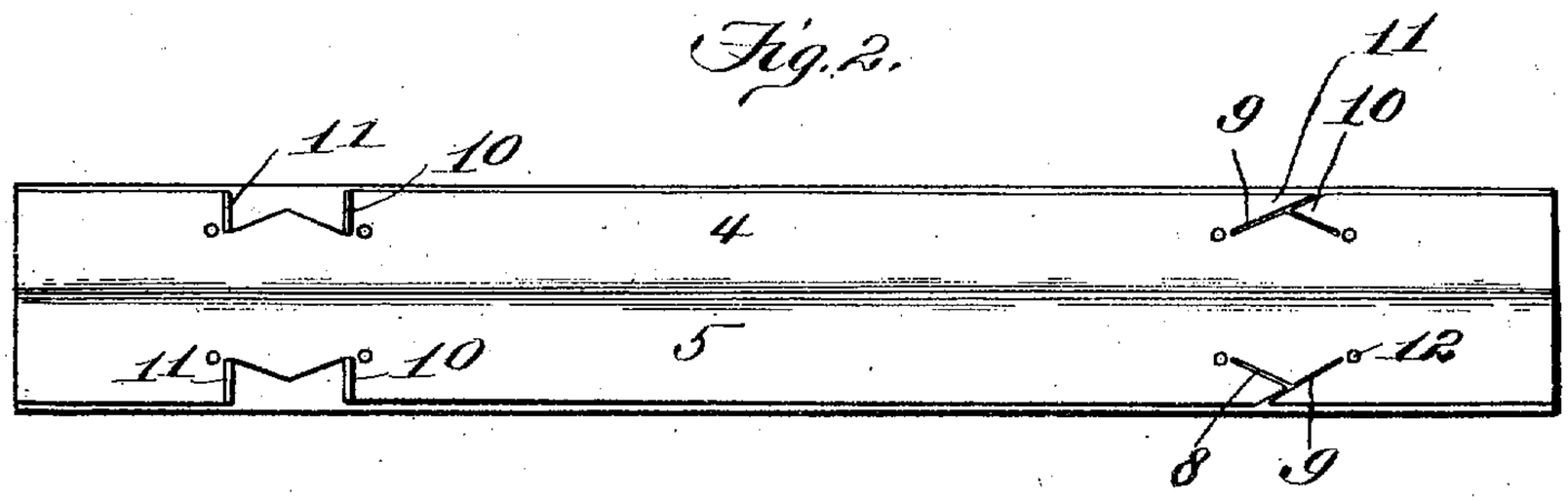


Fig. 3.

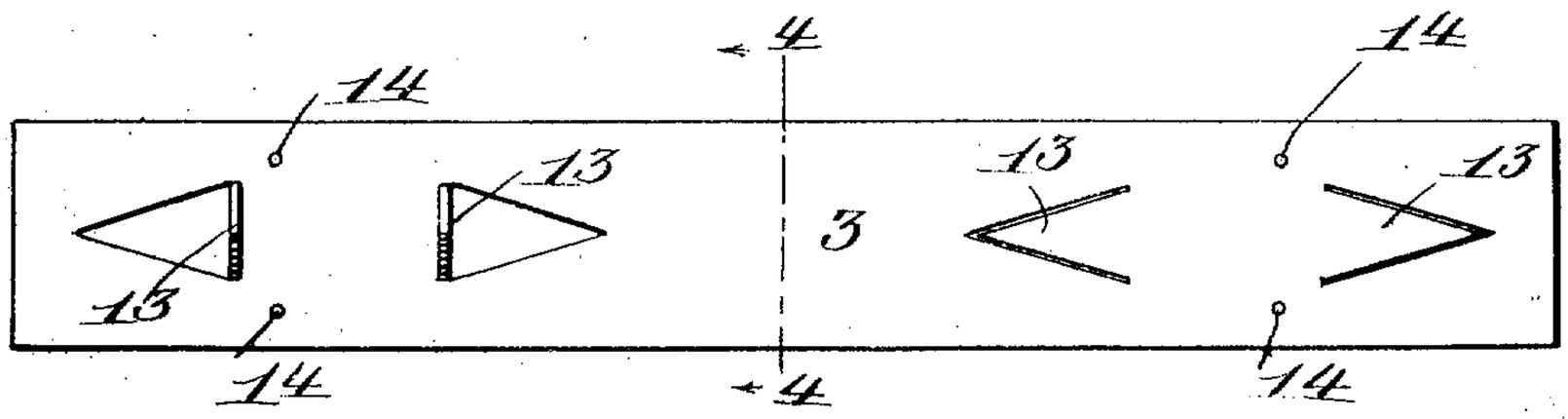
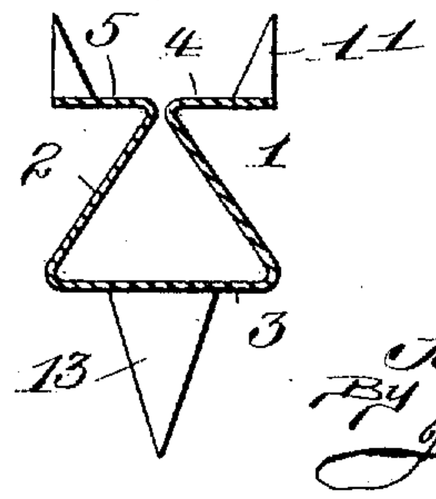


Fig. 4.



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UNITED STATES PATENT OFFICE.

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METALLIC RAILWAY-TIE.

No. 847,154. Specification of Letters Patent. Patented March 12, 1907.

Application filed May 29, 1906. Serial No. 319,337.

To all whom it may concern:

Be it known that I, JOSEPH BERGER, a citizen of the United States, residing at South Columbus, in the county of Franklin and State of Ohio, have invented new and useful Improvements in Metallic Railway-Ties, of which the following is a specification.

This invention relates to metallic railway-ties; and aims to provide a tie of such class in a manner as hereinafter set forth, so that the expansion and contraction thereof, due to weather conditions, will be obtained without causing damage to the tie; furthermore, to so set up the tie that it will be sufficiently elastic to constitute a cushion for the track-rail sections, but at the same time possess sufficient strength so as to properly support the track-rail sections.

The invention further aims to provide the top of the tie with integral clamping means for the track-rail sections, said means when moved to a position to clamp the base of the track-rails fixedly securing the track-rails in position, but at the same time permitting of the expansion and contraction of the track-rails.

The invention further aims to provide a metallic railway-tie in a manner as hereinafter set forth, with depending means to prevent the tie shifting laterally of the track-bed or in the direction of the length of the track-bed, said means also permitting of the tie being secured to bridge or truss irons when occasion so requires.

The invention further aims to provide a metallic railway-tie in a manner as hereinafter set forth, which shall be simple in its construction, strong, durable, efficient in its use, sufficiently elastic to constitute a cushion, readily set up, and comparatively inexpensive to manufacture.

With the foregoing and other objects in view the invention consists of the novel construction, combination, and arrangement of parts hereinafter more specifically described, and illustrated in the accompanying drawings, wherein is shown the preferred embodiment of the invention; but it is to be understood that changes, variations, and modifications can be resorted to which come within the scope of the claims hereunto appended.

In the drawings, wherein like reference characters denote corresponding parts throughout the several views, Figure 1 is a side elevation of a metallic railway-tie in accordance with this invention. Fig. 2 is a top plan view showing two pairs of the clamping-tongs elevated and the other two pairs lowered. Fig. 3 is an inverted plan view, and Fig. 4 is a section on the line 4 4, Fig. 3.

A metallic railway-tie in accordance with this invention is formed of a single plate or strip of suitable material which is bent upon itself so as to form a body portion substantially triangular in cross-section, the body portion provided with a pair of side walls 1 2 and a bottom 3. The plate is further bent so that at the apex of the body portion the side walls 1 2 turn in opposite directions, forming the horizontal supporting members 4 5 for the track-rail sections 6 7. The side walls 1 2 at their tops are not connected together; but when pressure is applied to the tie the upper end of the side walls 1 2 abut against each other. By providing the body portion in such manner the tie is sufficiently elastic so as to form a cushion when occasion requires.

Near each end of the members 4 5 a pair of slits 8 9 is provided, the slit 8 terminating in the slit 9. These slits 8 9 form clamping-tongues 10 11, the latter being of greater length than the former, or, in other words, the tongue 11 is adapted to overlap the tongue 10. The two pairs of slits 8 9 of the member 4 are parallel, respectively, with the two pairs of slits 8 9 of the member 5; but the slits 8 of the member 4 are arranged opposite the slits 9 of the member 5. By such an arrangement the elongated clamping-tongues 11 of the member 4 are oppositely disposed with respect to the elongated tongues 11 of the member 5. Consequently when the track-rail section is secured to the tie the elongated tongues at each end of the tie are alternately disposed upon the base of the track-rail sections. This manner of arranging the tongues affords more advantageous means for securing the base of the track-rail. If desired, the track-rail sections can be secured to the tie by bolts or other suitable holdfast devices, and if such be employed the members 4 5 are provided with the openings 12, through which said devices may extend.

The means to prevent lateral displacement of the tie or the shifting of the tie in the direction of the track-bed and, furthermore, to allow the tie to be secured to bridge or truss

irons when occasion requires consists of a plurality of pairs of depending tongues 13, which are struck from the bottom wall 3 of the body portion, and when the tie is set up the tongues 13 are moved to perpendicular position, as shown in Fig. 4. The tongues 13 are adapted to enter the track-bed, so as to form a means to prevent the shifting of the tie. If the tie is used upon bridge or truss irons, said tongues 13 can be bent to clamp the irons or secured thereto by any suitable holdfast devices. If desired, the bottom wall 3 of the body portion and the side walls 1 2 of the body portion may be provided with openings 14 15, respectively, through which may extend suitable holdfast devices for securing the tie in position to any suitable support. The openings 15 are in alinement with the openings 14.

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

1. A metallic railway-tie having a hollow body portion, triangular in cross-section, and provided adjacent to the apex of said triangular portion with track-rail-supporting members extending outwardly at right angles to a line drawn perpendicular to the base, the said body portion having the side walls thereof disconnected from each other at the top.

2. A metallic railway-tie having a hollow body portion, triangular in cross-section, and provided adjacent to the apex of said triangular portion with supporting members extending outwardly at right angles to a line drawn perpendicular to the base, each of said supporting members provided near each end thereof with a pair of clamping-tongues, the two pairs of tongues of one member being parallel with the two pairs of tongues of the other member.

3. A metallic railway-tie having a hollow body portion, triangular in cross-section, and provided adjacent to the apex of said triangular portion with supporting members extending outwardly at right angles to a line drawn perpendicular to the base, each of said supporting members provided near each end thereof with a pair of clamping-tongues, the two pairs of tongues of one member being parallel with the two pairs of tongues of the other member, one of the tongues of each pair of tongues being of greater length than the other tongue.

4. A metallic railway-tie having a hollow body portion, triangular in cross-section, and provided adjacent to the apex of said triangular portion with supporting members extending outwardly at right angles to a line drawn perpendicular to the base, each of said supporting members provided near each end thereof with a pair of clamping-tongues, the two pairs of tongues of one member being parallel with the two pairs of tongues of the other member, one of the tongues of each pair of tongues being of greater length than the other tongue, the elongated tongues of one member in parallelism with the shorter tongues of the other member.

5. A metallic railway-tie having a hollow body portion, triangular in cross-section, and provided adjacent to the apex of said triangular portion with track-rail-supporting members extending outwardly at right angles to a line drawn perpendicular to the base, the bottom of said body portion provided with a plurality of bendable tongues adapted to prevent the shifting of the tie.

6. A hollow metallic railway-tie provided with a pair of supporting members, each of said members having two pairs of clamping-tongues, one of the tongues of each pair of tongues being longer than the other tongue of each pair of tongues.

7. A hollow metallic railway-tie provided with a pair of supporting members, each of said members having two pairs of clamping-tongues, one of the tongues of each pair of tongues being longer than the other tongue of each pair of tongues, the elongated tongues of one member in parallelism with the short tongues of the other member.

8. A metallic railway-tie having a hollow body portion triangular in cross-section and provided adjacent to the apex of said triangular portion with flanged supporting members extending outwardly at right angles to a line drawn perpendicular to the base, said members provided with openings to receive holdfast devices and said body portion provided with openings to receive holdfast devices.

9. A metallic railway-tie having a hollow body portion triangular in cross-section and provided adjacent to the apex of said triangular portion with flanged supporting members extending outwardly at right angles to a line drawn perpendicular to the base, said members provided with openings to receive holdfast devices and said body portion provided with openings to receive holdfast devices, each of said members further provided with a plurality of clamping means.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

JOSEPH BERGER.

Witnesses:
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F. A. SIEGEL