

No. 743,790.

PATENTED NOV. 10, 1903.

F. D. YOUNG.
METALLIC TIE.

APPLICATION FILED MAY 7, 1903.

NO MODEL.

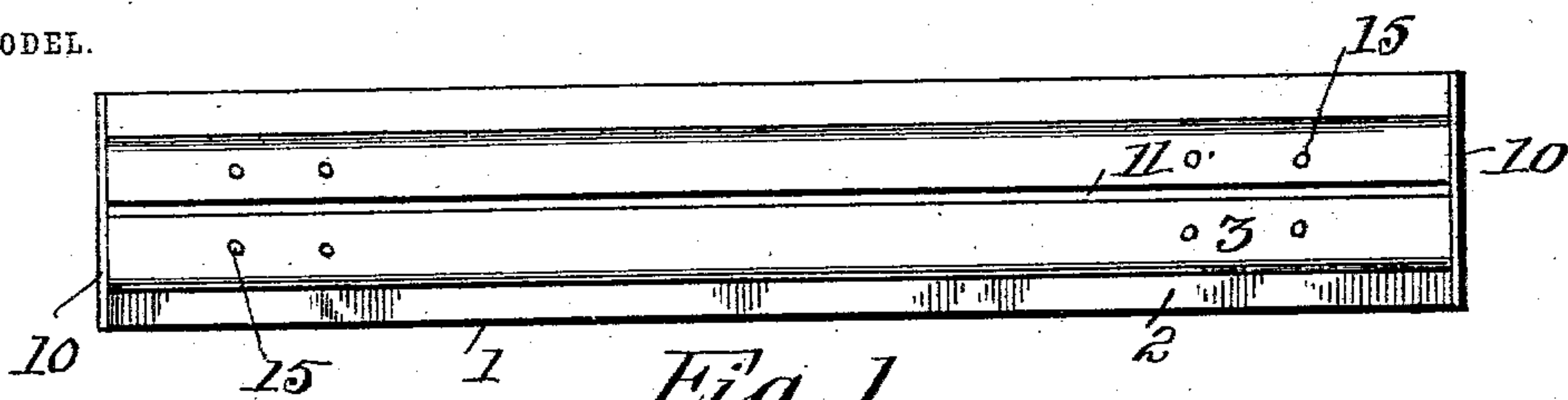


Fig. 1.

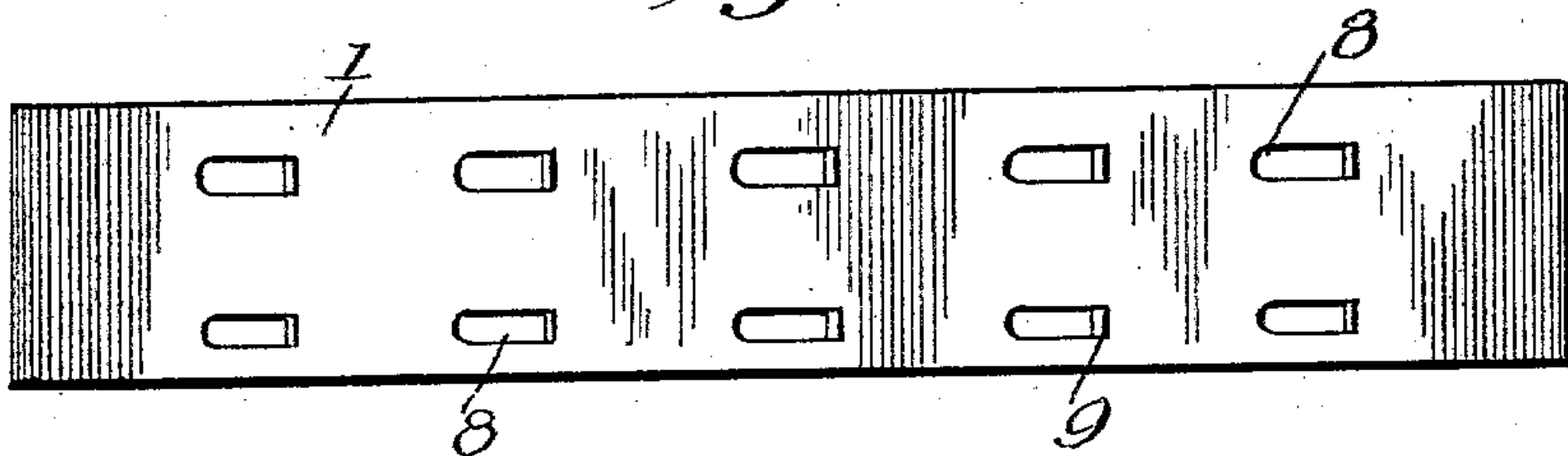


Fig. 2.

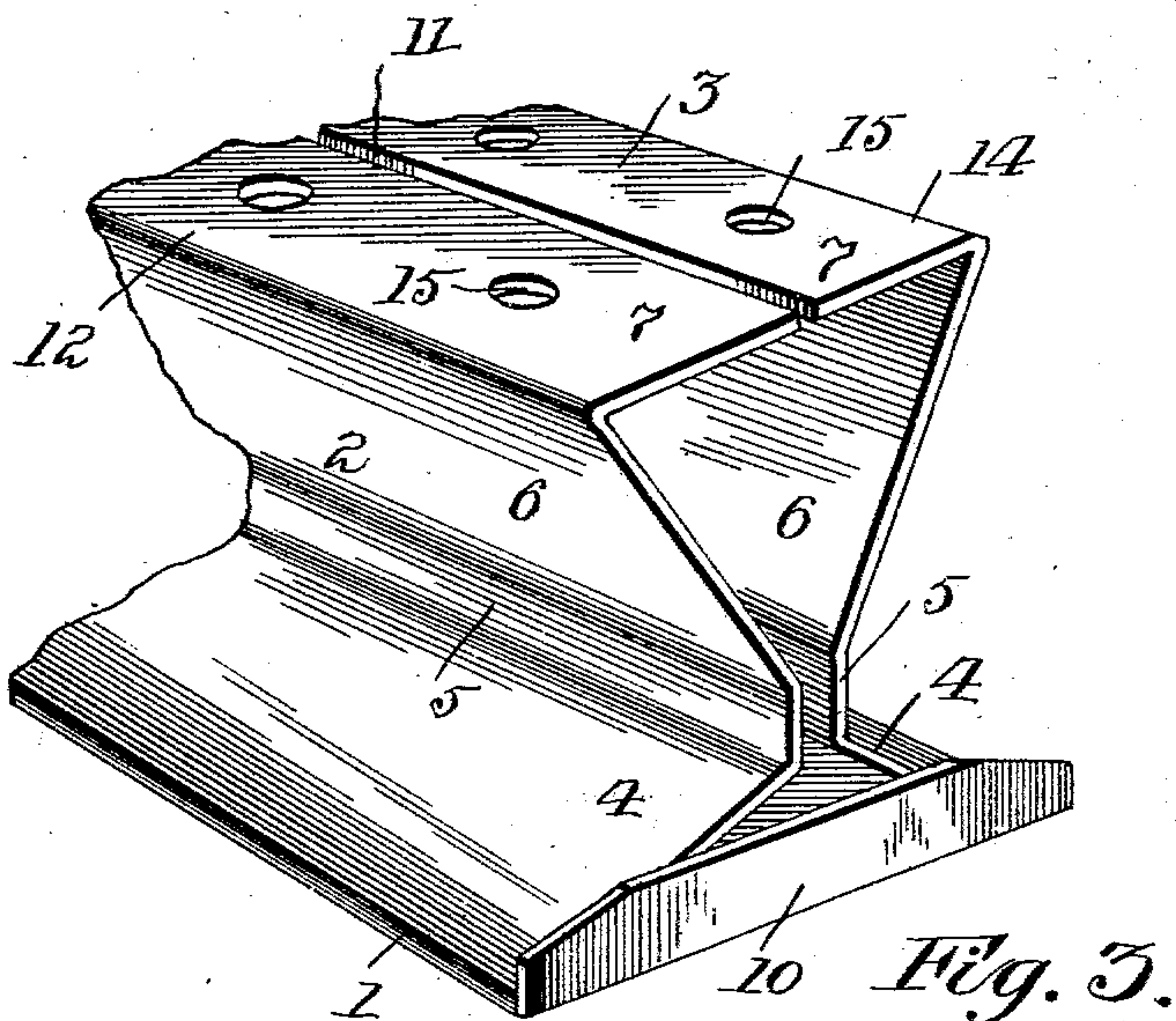


Fig. 3.

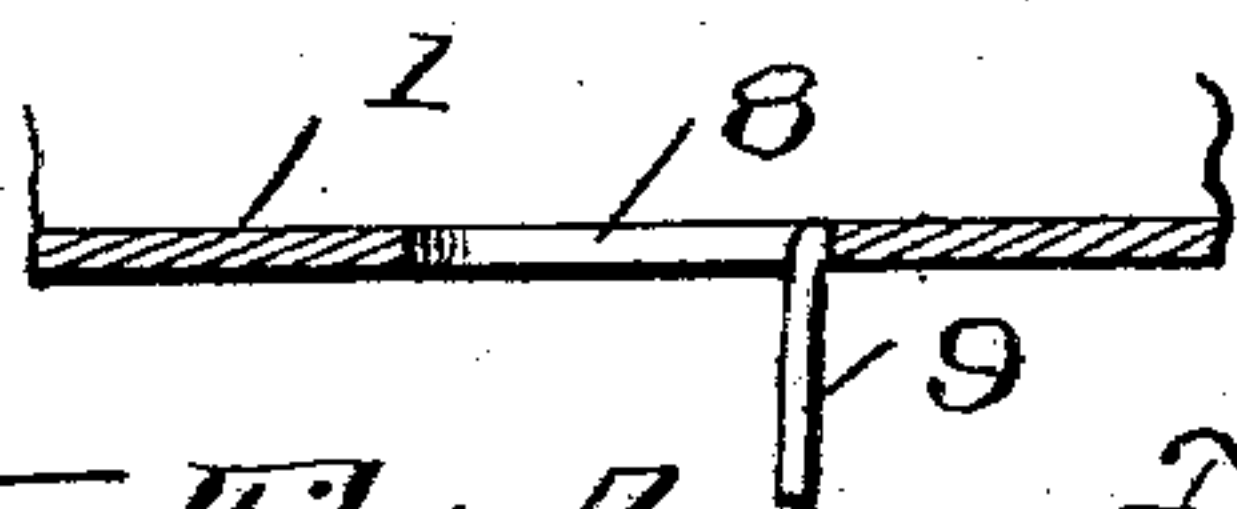


Fig. 4.

Witnesses
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UNITED STATES PATENT OFFICE.

FREDERICK D. YOUNG, OF HUNTINGTON, WEST VIRGINIA.

METALLIC TIE.

SPECIFICATION forming part of Letters Patent No. 743,790, dated November 10, 1903.

Application filed May 7, 1903. Serial No. 156,123. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK D. YOUNG, a citizen of the United States, residing at Huntington, in the county of Cabell and State of West Virginia, have invented a new and useful Improvement in Metallic Ties, of which improvement the following is a specification.

This invention relates to certain new and useful improvements in metallic ties, and has for its object to provide a tie which will be extremely strong.

Another object of my invention is to provide a tie which may be firmly secured in the ballast, whereby the tie is prevented from moving and derailing the trains.

A still further object of my invention is to provide a tie which can be readily made from rolled metal and which is so formed that strength and durability are obtained, thus producing a tie which will be highly efficient in use.

Briefly described, my invention consists of a tie stamped or sheared from rolled steel, the same being formed into a tie of the ordinary proportions, the sides of the tie being bent inwardly to form a spring to relieve any tension upon the face of the tie.

With the above and other objects in view the invention consists in the novel construction, combination, and arrangement of parts to be hereinafter more fully described, and specifically pointed out in the claims.

In describing the invention in detail reference is had to the accompanying drawings, forming a part of this specification, and wherein like numerals of reference indicate like parts throughout the several views, in which—

Figure 1 is a top plan view. Fig. 2 is a bottom plan view. Fig. 3 is a fragmentary perspective view of the end of the tie, and Fig. 4 a section of a portion of the base of the tie.

Referring to the accompanying drawings, the reference-numeral 1 indicates the base of the tie, and formed integral with the base are the sides 2 and the top 3. The sides 2 are formed by bending the metal at an acute angle, as shown at 4, from whence they are bent vertical, as at 5. From the vertical position the sides are bent outwardly at an angle, as shown at 6, and then again bent in-

wardly on a horizontal plan with the base, as indicated at 7.

It will be seen in the drawings that the two vertical portions of the sides come in close proximity to each other, forming a neck longitudinally of the tie. This construction will permit the tie to relieve all stress or weight placed upon the upper face of the tie 7, said neck or vertical sides moving inwardly as the stress or strain is applied. To prevent my improved tie from sliding or slipping upon the ballast, I punch or shear the base 1 of the tie, as shown in Figs. 2 and 4.

The reference-numeral 8 indicates the apertures in the base of the tie, which are formed by punching or shearing the same in a V shape and turning or bending down the punched portion 9, which engages in the ballast, it being immaterial as to the number of prongs engaging the ballast.

It will be noted that I have formed a lip upon each end of the tie, said lip, as indicated by 10, being formed integral with the base and bent vertical, partially closing the end of the tie, whereby the ballast is prevented from entering the ends of tie and preventing the vertical sides from moving inwardly.

I provide for the expansion and contraction of the tie by a groove or space 11 in the top of the tie, which is made by the two top pieces or sides 12 and 14. This space extending longitudinally of the tie allows the same to expand and contract.

The reference-numeral 15 indicates apertures in the top surface of the tie, through which any means may be employed to secure the rail thereon.

It will be noted that by the construction shown and described my improved tie may be sheared or stamped from a single piece of material and then formed into the desired shape, as set forth. It will also be noted that various changes may be made in the details of construction without departing from the general spirit of my invention.

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

1. A metallic tie sheared or stamped from a single piece of metal, said tie being formed

- or shaped into a base having sides and top, the base having cut-away portions which are bent downwardly forming prongs, the sides being bent inwardly at an acute angle, then
5 vertically or outwardly, said sides lying in close proximity forming a neck, and said sides being bent inwardly on a plane horizontal to the base to form a top, substantially as described.
- 10 2. A metallic tie sheared or stamped from a single piece of metal, said tie being formed or shaped into a base having sides and top, the base having cut-away portions which are bent downwardly forming prongs, the sides
15 being bent inwardly at an acute angle, then vertically or outwardly, said sides lying in close proximity forming a neck, said sides being bent inwardly on a plane horizontal to the base to form a top, said sides forming a
20 longitudinal slot in the top, and apertures formed in said top, substantially as described.
3. A metallic tie sheared or stamped from

a single piece of metal, said tie being formed or shaped into a base having sides and top, the base having cut-away portions which are
25 bent downwardly forming prongs, the sides being bent inwardly at an acute angle, then vertically or outwardly, said sides lying in close proximity forming a neck, said sides being bent inwardly on a plane horizontal to
30 the base to form a top, said sides forming a longitudinal slot in the top, apertures formed in said top, the base of said tie having its ends partially closed by a lip, said lip being formed by the ends of the base being bent vertical,
35 substantially as described.

In testimony whereof I have hereunto signed my name in the presence of two subscribing witnesses.

FREDERICK D. YOUNG.

In presence of—

JONATHAN GORSUCH,
J. C. RICHARDSON.