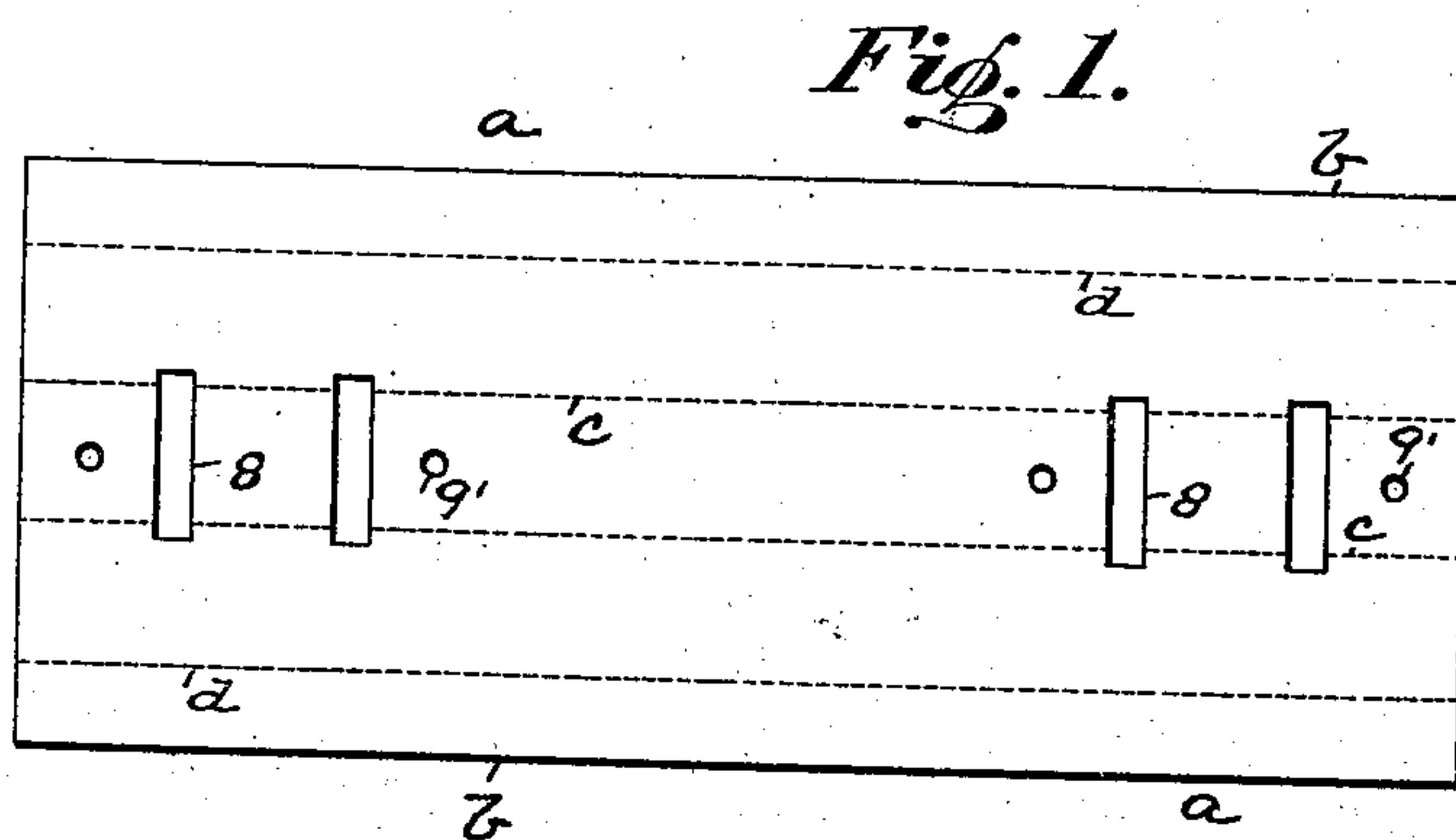
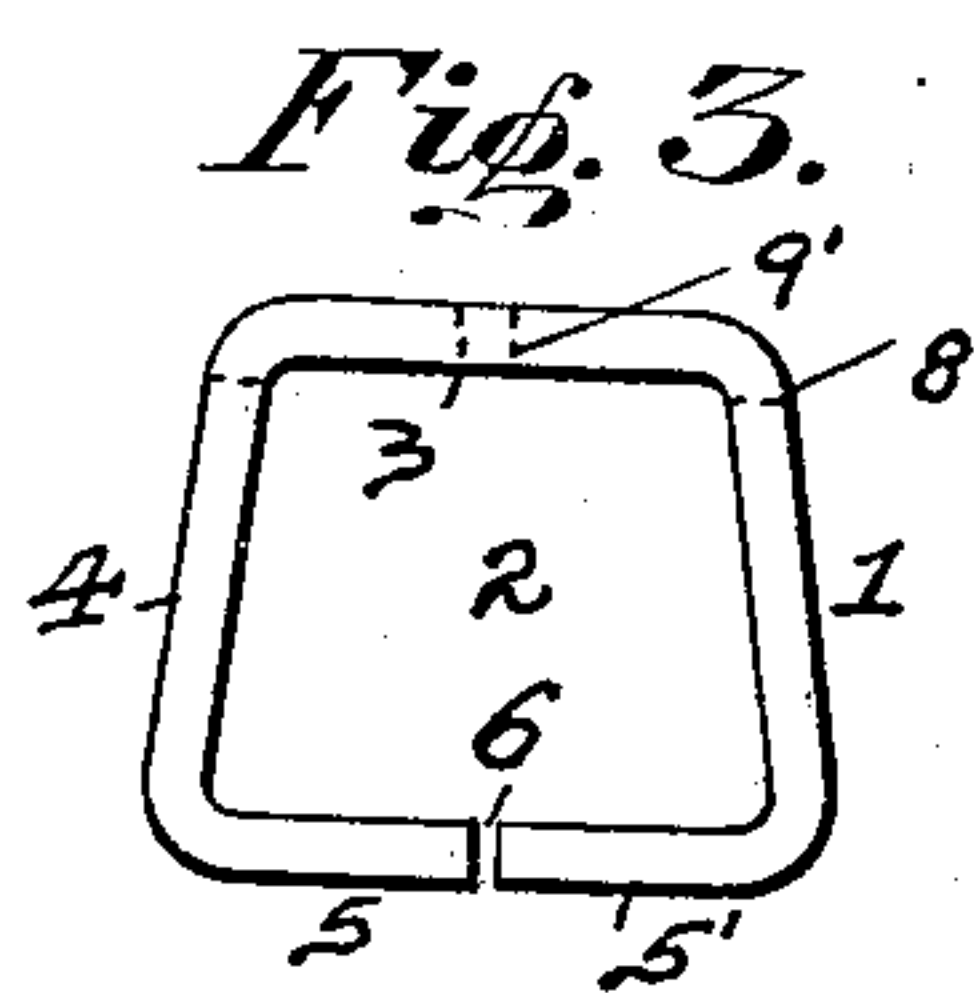
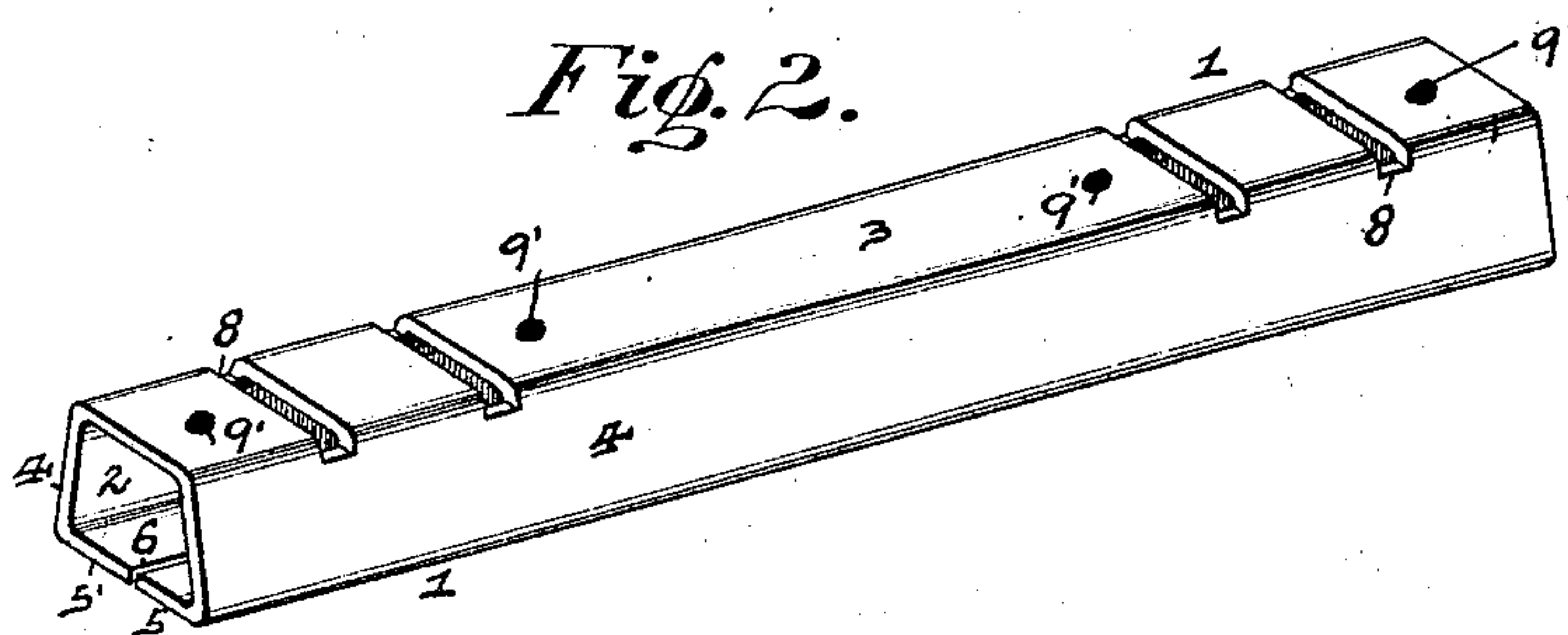
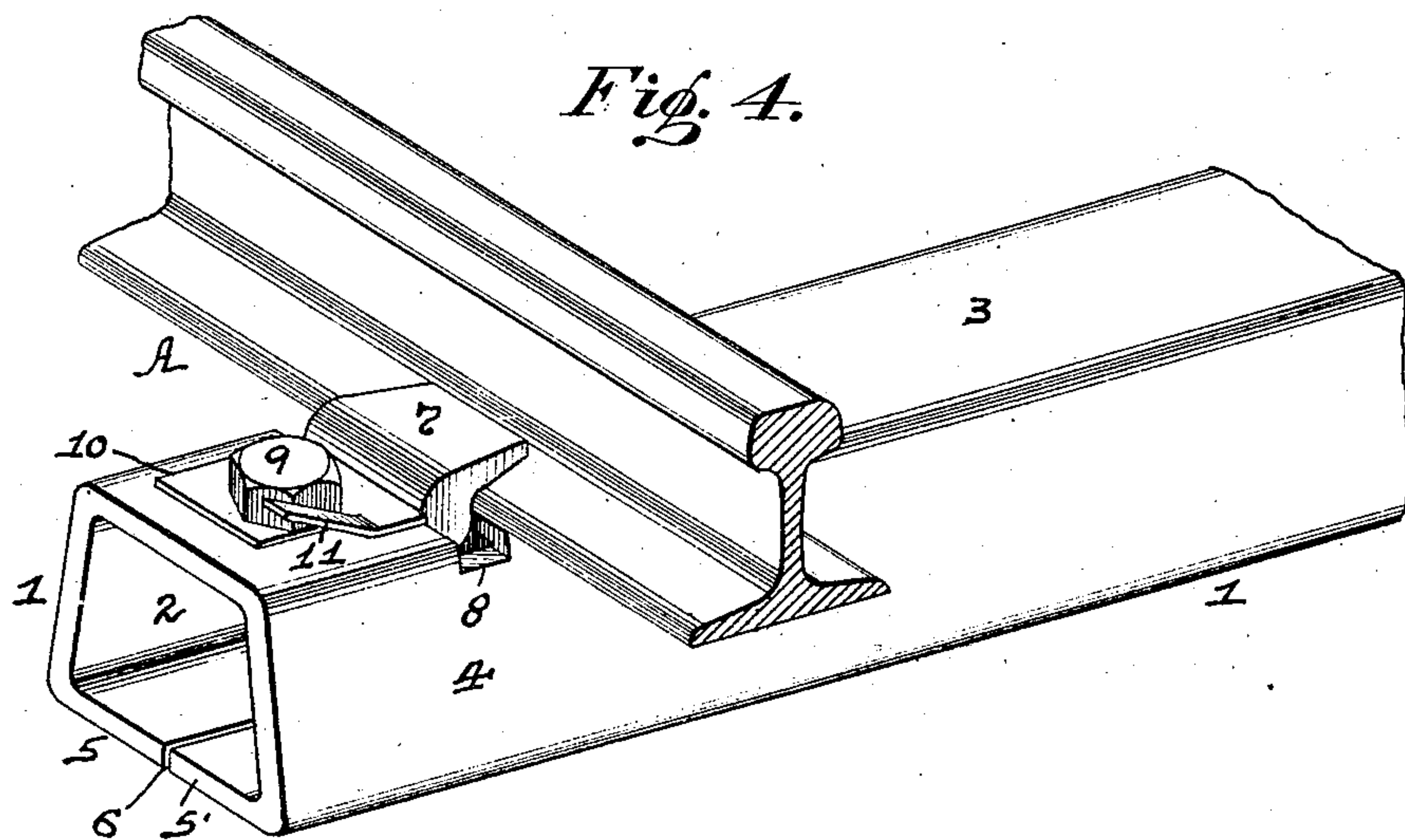


No. 859,203.

PATENTED JULY 9, 1907.

G. M. CÔTÉ.  
RAILROAD TIE.  
APPLICATION FILED NOV. 22, 1906.



Witnesses

Walter Samarin

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# UNITED STATES PATENT OFFICE.

GEORGE M. CÔTÉ, OF PITTSBURG, PENNSYLVANIA.

## RAILROAD-TIE.

No. 859,203.

Specification of Letters Patent.

Patented July 9, 1907.

Application filed November 22, 1906. Serial No. 344,570.

To all whom it may concern:

Be it known that I, GEORGE M. CÔTÉ, a resident of Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Railroad-Ties; and I do hereby declare the following to be a full, clear, and exact description thereof.

My invention relates to railroad ties and has special reference to metallic ties for use in supporting rails thereon.

The object of my invention is to provide a cheap, simple and efficient form of a railroad tie which can be easily and cheaply manufactured, will firmly hold the rails thereon and will allow the attaching of the rails thereto, while at the same time such a tie as will permit expansion and contraction therein and sufficient resiliency for the purpose intended.

My invention consists, generally stated, in the novel construction of a tie, as hereinafter more specifically set forth and described and particularly pointed out in the claims.

To enable others skilled in the art to which my invention appertains to construct and use my improved tie, I will describe the same more fully, referring to the accompanying drawing, in which—

Figure 1 is a plan view of a plate ready to be formed into my improved tie. Fig. 2 is a perspective view of the tie in shape ready for use. Fig. 3 is an enlarged end view of the tie. Fig. 4 is a perspective view of a portion of the tie showing a portion of the rail thereon and attached thereto.

Like symbols of reference herein indicate like parts in each of the figures of the drawing.

As illustrated in the drawing, 1 represents the tie which is preferably formed from a plate or a sheet of metal *a* and cut to the proper size and shape and bent to a four-sided form in cross-section by rolling or pressing in suitable dies. In such bending of the plate or sheet *a* the metal thereof is bent or folded around in order to provide for the hollow tie 1 having the chamber 2 through the same, the flat top 3 and the inclined or outwardly flared sides 4 leading from said top, and such sides connect with the portions 5' for the flat bottom 5 of the said tie. When the metal of the plate or sheet *a* is thus brought to shape to form the said tie 1, the side edges *b* of said sheet in forming the bottom 5 will come opposite each other and form the longitudinal slit, space or opening 6 between them.

In my application filed on September 17, 1906, Serial No. 334,996, there is shown a construction of a rail support for use with a hollow tie substantially like the tie 1, which consists, generally, of a Z-shaped clamping-bar 7 engaging at one end with the base of the rail *A* on the top 3 and passing through an opening or hole 8 in said top 3 of the tie 1, so that the op-

posite end of said bar located within the said tie can be engaged by a bolt 9 passing through said top, while a plate 10 fits around said bolt on the top 3 and is provided with a spring lip 11 thereon for engaging with the head of said bolt to lock the same in place. In the use of such a rail support the holes 8 for these rail supporting bars 7 and the holes 9' for the bolts can be formed in the plate *a* before it is formed into the tie, as shown in Fig. 1, and by reference to said plate, as shown in said figure, the dotted lines indicate the points of bending in forming the tie 1 and the part between the dotted lines *c* indicates the portion for forming the top 3, the part between the lines *c* and *d* indicates the portion for forming the inclined sides 4, while the part between the lines *d* and the side edges *b* of said plate indicates the parts for forming the portions 5' composing the flat bottom 5.

It will be obvious that my improved tie may be of material other than metal and that various modifications and changes in the design and construction of the same may be resorted to without departing from the spirit of the invention or sacrificing any of its advantages. It will thus be seen that my improved railroad tie will provide for a springy action within the same in the passing of trains over the same, by reason of the formation of its sides and they can be made in a rapid and convenient manner through rolling in specially formed dies, and also by a pressing operation, so that the tie is complete and ready for instant use. It will be lasting and durable and will not be liable to spread, break or get out of shape.

What I claim as my invention and desire to secure by Letters Patent is—

1. A tie for rails formed from a plate or sheet into a hollow four-sided shape in cross-section and having openings in the top of the same, its sides outwardly flaring from the top of the tie and its bottom slit longitudinally to provide for an opening or space therein.

2. A tie for rails formed from a plate or sheet into a hollow four-sided shape in cross-section by bending and having openings in the top of the same, its sides outwardly flaring from the top of the tie and its bottom slit longitudinally to provide for an opening or space therein.

3. A tie for rails formed from a metallic plate or sheet into a hollow four-sided shape in cross-section and having openings in the top of the same, its sides outwardly flaring from the top of the tie and its bottom slit longitudinally to provide for an opening or space therein.

4. A tie for rails formed from a metallic plate or sheet into a hollow four-sided shape in cross-section by bending and having openings in the top of the same, its sides outwardly flaring from the top of the tie and its bottom slit longitudinally to provide for an opening or space therein.

In testimony whereof, I the said GEORGE M. CÔTÉ have hereunto set my hand.

GEORGE M. CÔTÉ.

Witnesses:

J. N. COOKE,

WM. R. McCOMMON.