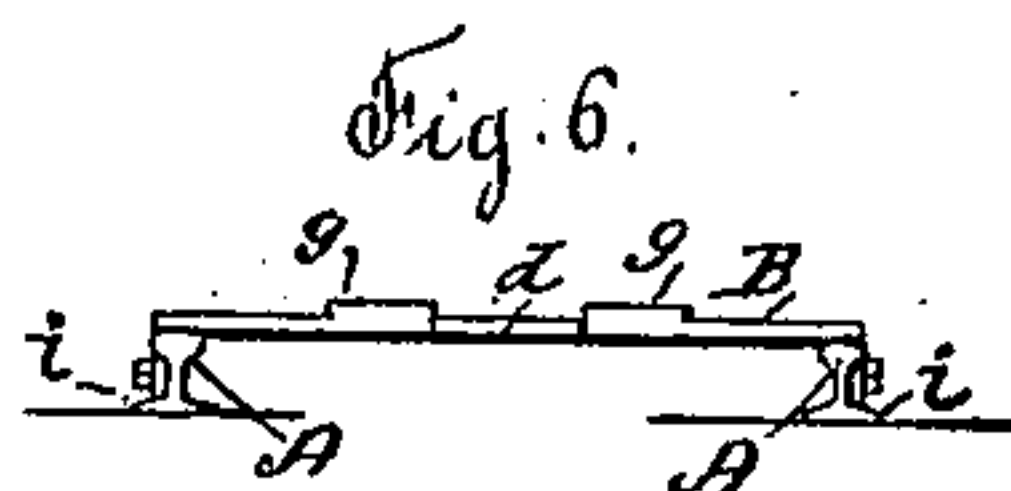
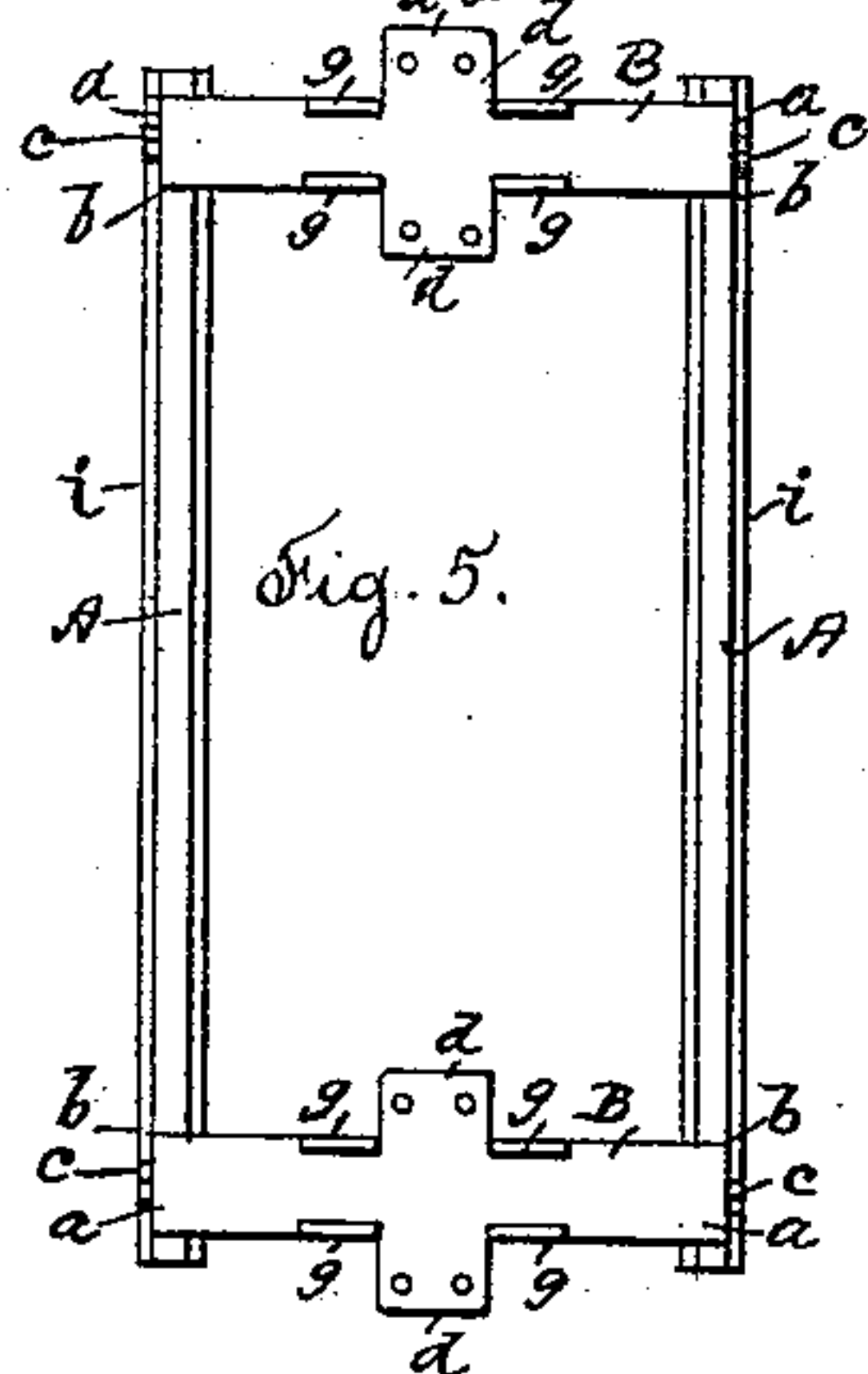
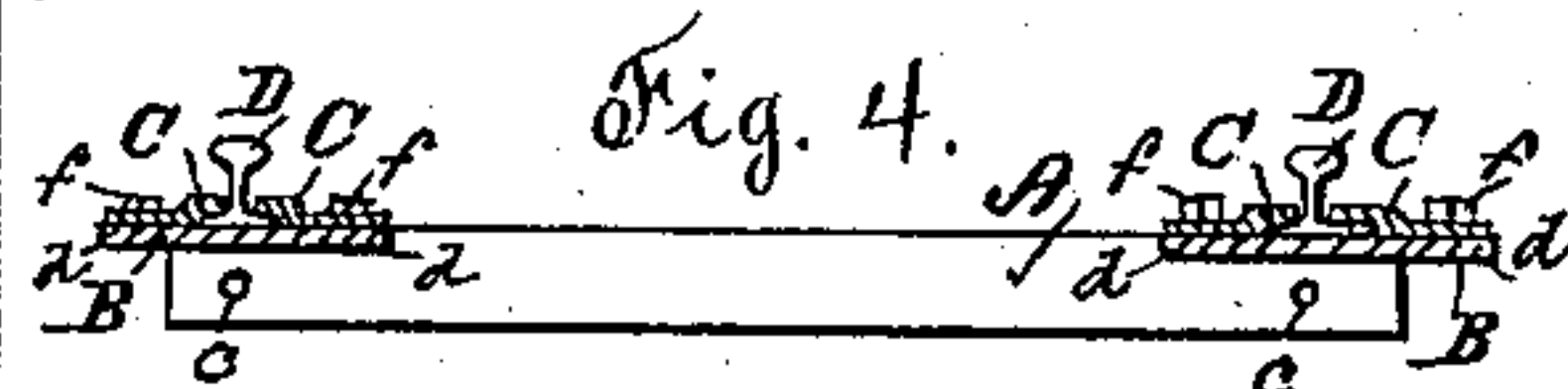
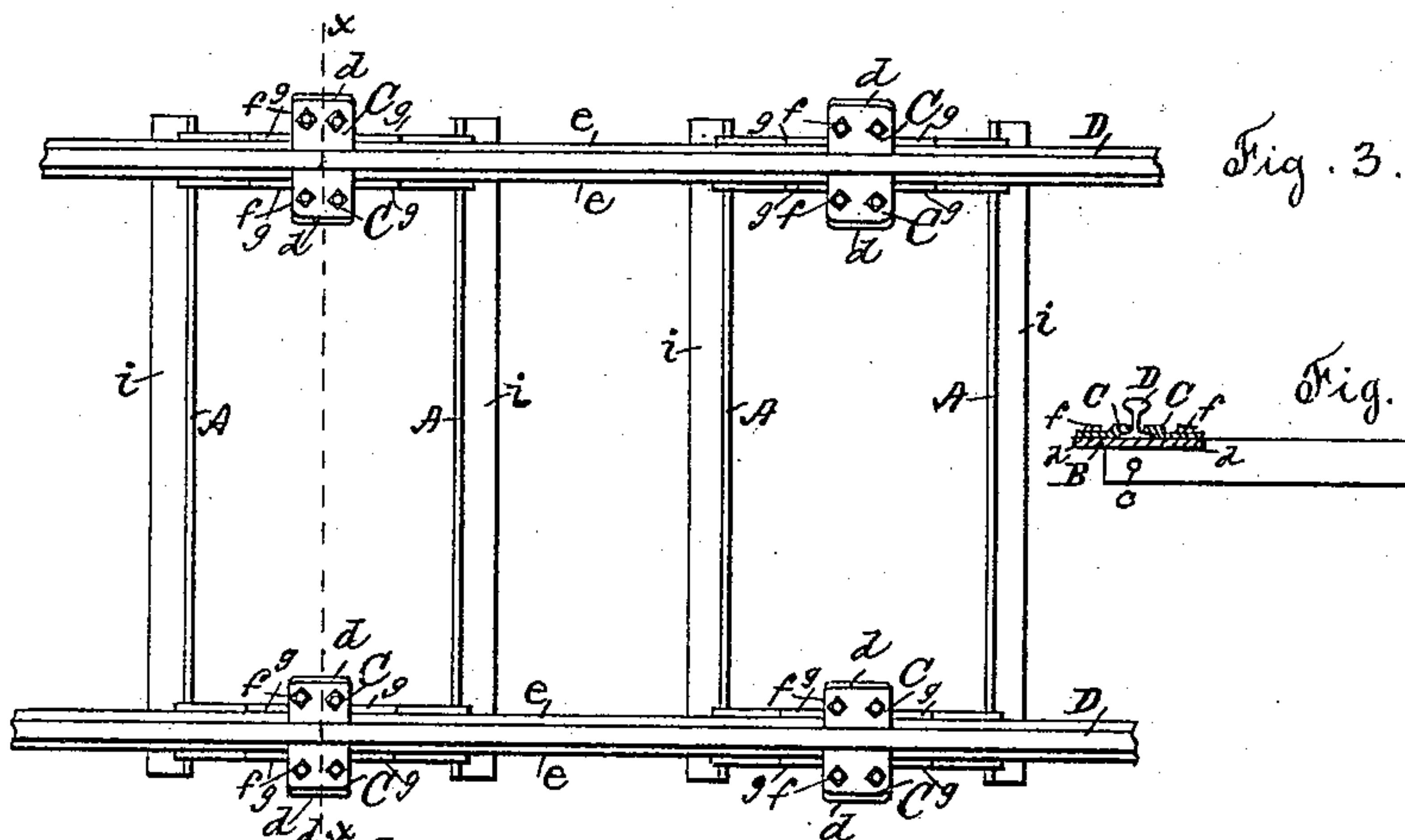
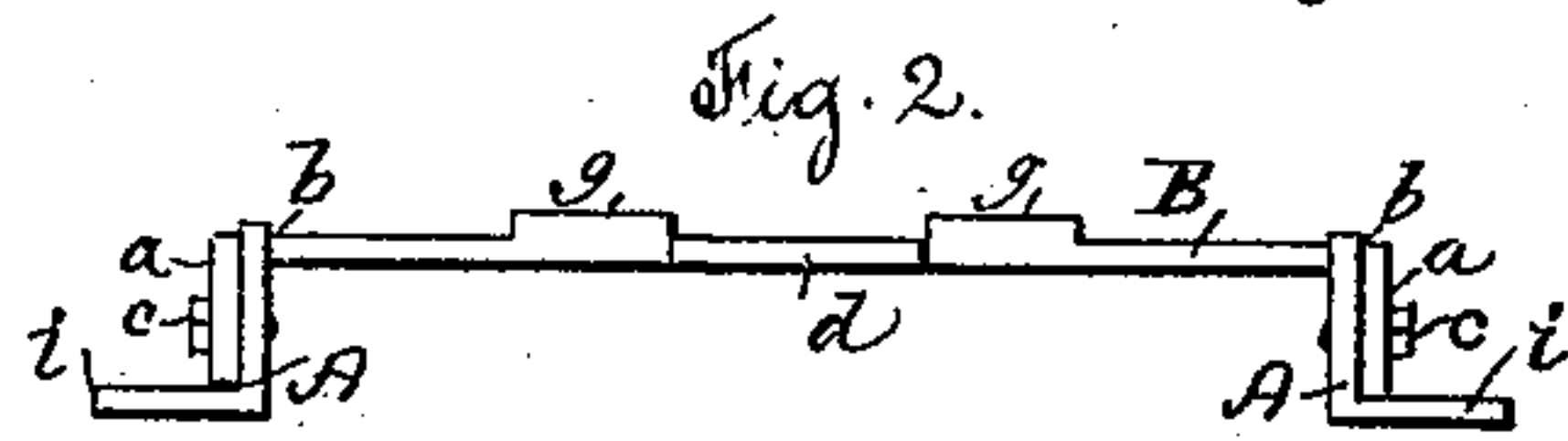
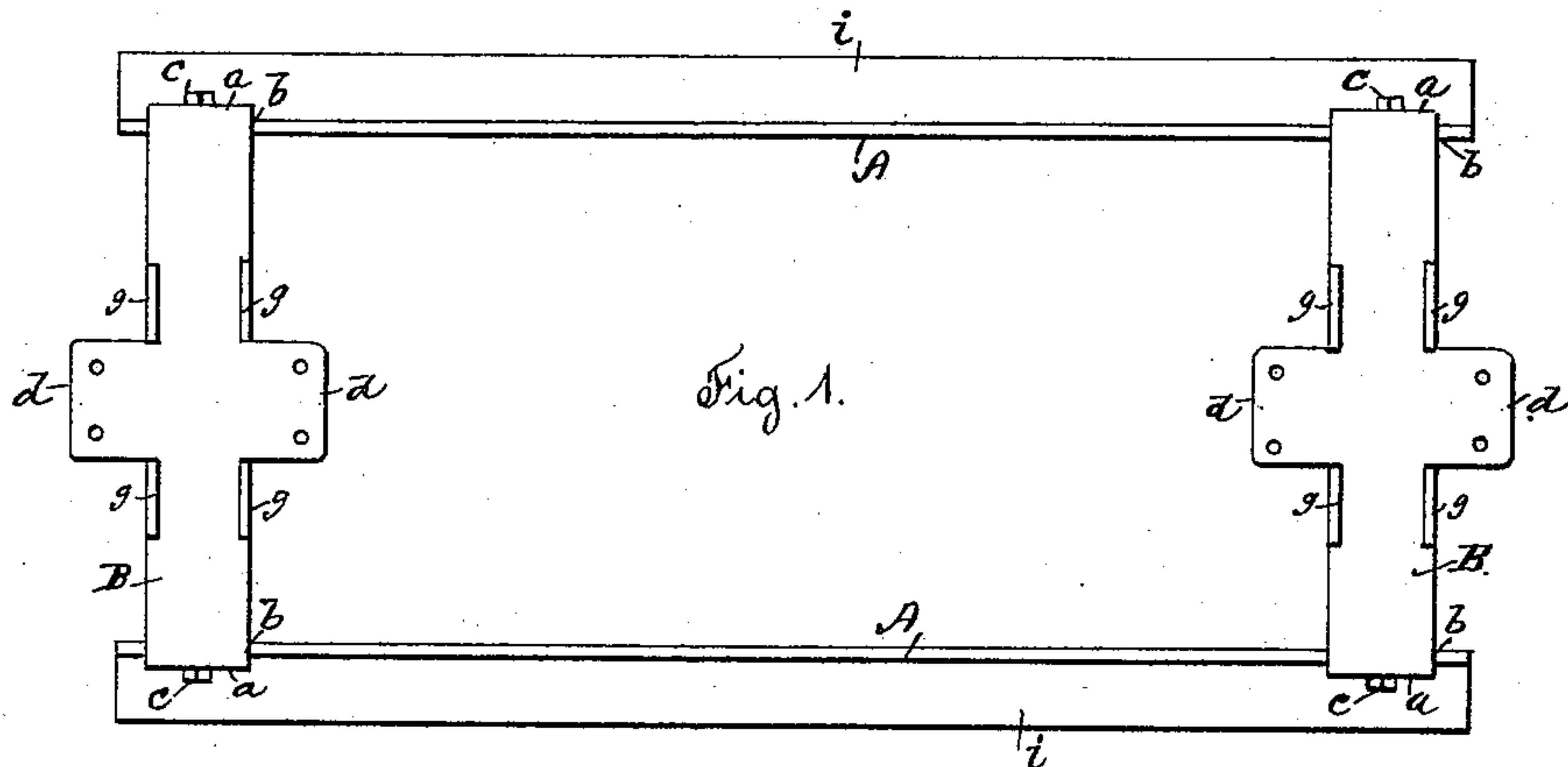


(No Model.)

S. VANSTONE.
RAILROAD TIE.

No. 441,385.

Patented Nov. 25, 1890.



Witnesses
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UNITED STATES PATENT OFFICE.

SAMUEL VANSTONE, OF PROVIDENCE, RHODE ISLAND.

RAILROAD-TIE.

SPECIFICATION forming part of Letters Patent No. 441,385, dated November 25, 1890.

Application filed January 31, 1890. Serial No. 338,765. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL VANSTONE, a citizen of the United States, residing at Providence, in the State of Rhode Island, have invented a new and useful Improvement in Railroad-Ties, of which the following is a specification.

The object of my invention is to provide a cheaply-constructed and practical railroad-tie which shall take the place of two ordinary ties, and to provide a yielding seat for the end of the rails between the ties; and my invention consists in the improved construction and arrangement of parts, as hereinafter fully set forth.

Figure 1 represents a top view of my improved metal railroad-tie. Fig. 2 represents an end elevation of the same. Fig. 3 represents a top view of a section of the railroad-track. Fig. 4 represents a transverse section of the same, taken in the line *xx* of Fig. 3. Fig. 5 represents the top view of a railroad-tie formed of the yielding chairs, combined with sections of the ordinary track-rail. Fig. 6 represents an end view of the same.

In the accompanying drawings, Figs. 1 and 2, A A represent cross-ties formed of bars of angle-iron, which are provided with notches *b b* to receive the ends of the yielding chairs B B and prevent the rails from spreading. The chairs B B are provided with a downwardly-turned lip *a* at their opposite ends, the said lips being secured to the outer side of the parallel bars A A by means of suitable bolts *c*. The chairs B B are also provided with the laterally-extending ears *d d*, and to the said ears *d d* are secured the clamping-pieces C C, which embrace the flange *e* of the rail D and serve to secure the same to the tie, the said clamping-pieces C C being attached to the ears *d d* by means of the bolts *f f*.

The bars A A may be advantageously made of suitably-divided sections of the ordinary track-rail, as shown in Figs. 5 and 6, and in

this case the rail-formed tie-bars A A are preferably provided with a notch *b* at the outer side of the head of the rail to receive the downwardly-turned lip *a* of the yielding chair.

The chairs B B are preferably provided with the opposite ribs *g g*, which serve to hold the edges of the flange *e* of the track-rail D, and the flange *i* of the tie-bar A serves to anchor the tie, and also furnishes an under surface adapted for tamping.

The chair B is supported at its ends upon the bars A A, so that the ends *j j* of the rails, which are attached to the ears *d d* of the chair by means of the opposite clamping-pieces C C, will yield to the weight of the passing locomotive or train, and thus serve to prevent the abutting ends of the rails from becoming worn or battered when the ends of the rails are held upon a comparatively rigid support, as upon the ordinary railroad-ties.

I claim as my invention—

1. In a railroad-tie, the combination, with the bars A A, provided with the flange *i*, of the yielding chairs B B, supported at their ends upon the bars A A and provided with the attaching-lips *a a*, substantially as described.

2. In a railroad-tie, the combination, with the tie-bars A A, provided with the flange *i*, of the yielding chairs B B, supported at their ends by the bars A A and provided with the ears *d d*, adapted for attaching the rails to the tie, substantially as described.

3. In a railroad-tie, the combination, with the tie-bars A A, provided with the flange *i* and the notches *b b*, of the yielding chairs B B, supported at their ends upon the bars A A and provided with the attaching-lips *a a*, substantially as described.

SAMUEL VANSTONE.

Witnesses:

SOCRATES SCHOLFIELD,
CHARLES T. H. VANSTONE.