

(No Model.)

E. SISKRON.
METALLIC RAILWAY TIE.

No. 504,695.

Patented Sept. 5, 1893.

Fig. 1.

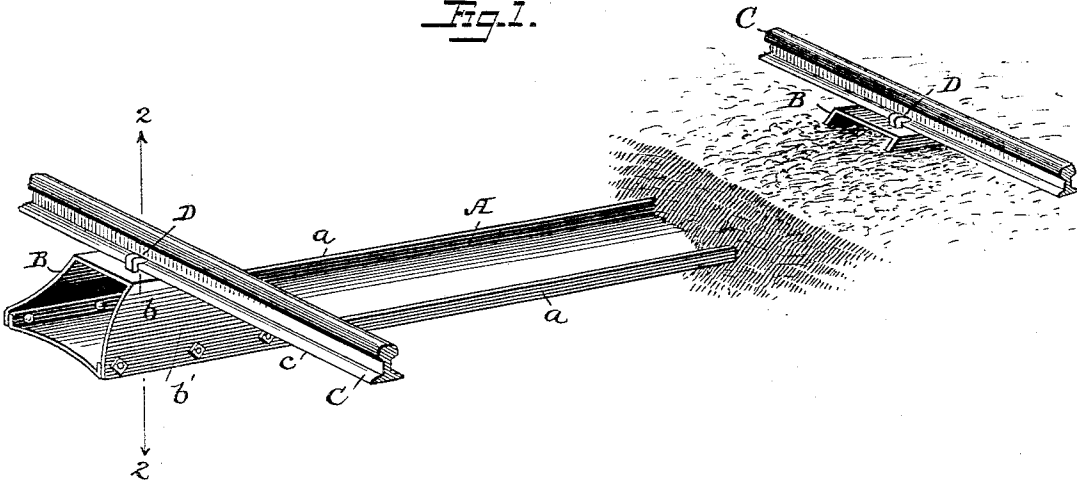


Fig. 2.

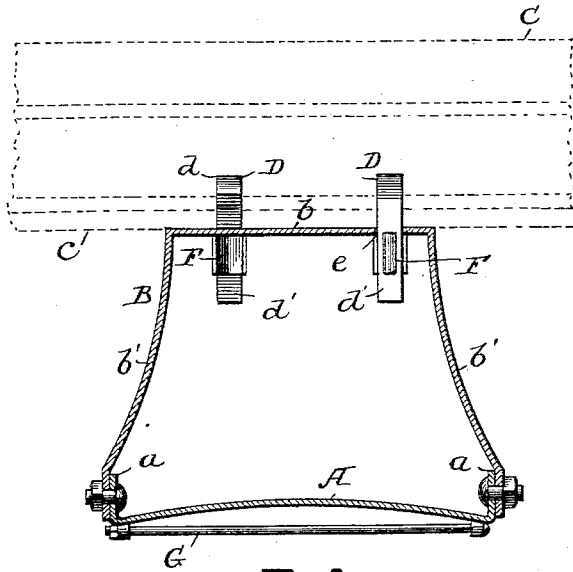
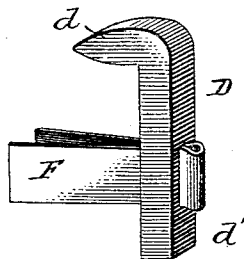


Fig. 3.



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UNITED STATES PATENT OFFICE.

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METALLIC RAILWAY-TIE.

SPECIFICATION forming part of Letters Patent No. 504,695, dated September 5, 1893.

Application filed September 8, 1892. Serial No. 445,370. (No model.)

To all whom it may concern:

Be it known that I, EDWARD SISKRON, a citizen of the United States, residing at Minneapolis, in the county of Hennepin and State of Minnesota, have invented certain new and useful Improvements in Metallic Railway-Ties, of which the following is a specification.

My invention relates to metallic railway ties; and it consists of improvements in the cross tie, in box-like devices upon which the rails rest and are supported secured to the ends of the cross tie, and in improved means for securing the rails to the ties.

In the drawings wherein my invention is illustrated, Figure 1 is a perspective view of a metallic railway tie embodying my invention. Fig. 2 is a vertical section on the line 2—2 of Fig. 1. Fig. 3 is a view of one of the rail securing clamps, detached.

In the drawings, A represents the cross tie proper, which consists of a plate of iron or steel, preferably the latter, at the ends of which are secured the box-like supports B for the rails. The cross tie A is preferably curved upward slightly along its center, as shown in Fig. 2, as greater elasticity is secured thereby than if the plate were perfectly flat. The edges of the plate A may be strengthened by being turned upward, forming the flanges *a*, or these flanges may be formed by means of angle irons which are secured along the edges of the plate. These flanges not only strengthen the plates A, but they also prevent transverse movements of the tie. The box-like rail supports B have the flat tops *b* upon which the rails C rest, and the sides *b'*, which preferably widen toward the bottom, where they are connected to the tie A, by being riveted or otherwise secured to the flanges *a*; or, the sides of the box may be folded over the edges of the tie and bent up against its bottom to which they may be secured.

As shown in the drawings the sides of the box B may be curved or bowed inward slightly, as this construction serves to hold the dirt forming the bed between the boxes of two contiguous ties better than if they were straight.

D D represent the clamps by which the rails are secured to the box-like portions B of the ties. Their heads or hooked ends *d* engage

with the flanges *c* of the rails, and their stem portions *d'* pass through holes *e* in the top of the box.

F F are keys which are passed through slots in the stems *d'* of the clamps and hold the clamps close down upon the rails. While this form of rail-securing device is the one which I prefer to employ, it is evident that other forms of devices for the same purpose may be employed in connection with the other features of my invention.

In use the plate portion A of the tie is completely covered, as are also the greater portions of the box-like ends B upon which the rails rest. It will be observed that the ends of the boxes B are open so that it is always easy to reach and manipulate the clamps D or other means by which the rails are secured.

G represents a rod extending transversely across the plate A below the same, its ends being connected to the opposite edges of the plate. This rod imparts additional strength to the tie, and may be used when the plate A is bent upward as shown. One of these rods may be used at each end of each box B.

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

1. A metallic cross tie for railways, consisting of a plate curved or bowed upward slightly transversely, and having raised supports for the rails at its ends, substantially as set forth.

2. The combination of a metallic cross tie for railways consisting of a plate curved or bowed upward slightly transversely and provided along its edges with upturned flanges *a* and the raised support for the rails secured to such upturned flanges, substantially as set forth.

3. A metallic cross tie for railways consisting of a plate provided along its edges with upturned flanges *a* in combination with the box-like supports B for the rails having the flat top portions upon which the rails rest, and the sides, the lower portions of which lie parallel with and against the flanges *a* to which they are secured, substantially as set forth.

4. A metallic cross tie for railways, consisting of the plate A, and the box-like supports

for the rails, B, having the flat tops, and the inward curved or bowed sides *b'* secured at their lower ends to the plate A, the ends of such box-like supports being open, substantially as set forth.

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10 5. A metallic cross tie for railways, consisting of a plate, in combination with the open-ended box-like supports B for the rails secured to the plate near its ends, the top plate of the said box-like support being flat and being perforated adjacent to the line of the

rail, the rails, the clamps D extending through the said perforation in the top plate of the rail support and the keys F which secure the clamps in place, substantially as set forth. 15

In testimony whereof I affix my signature in presence of two witnesses.

EDWARD SISKRON.

Witnesses:

H. M. FARNAM,
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