

(No Model.)

J. I. NEWBURG.
RAILWAY.

No. 578,896.

Patented Mar. 16, 1897.

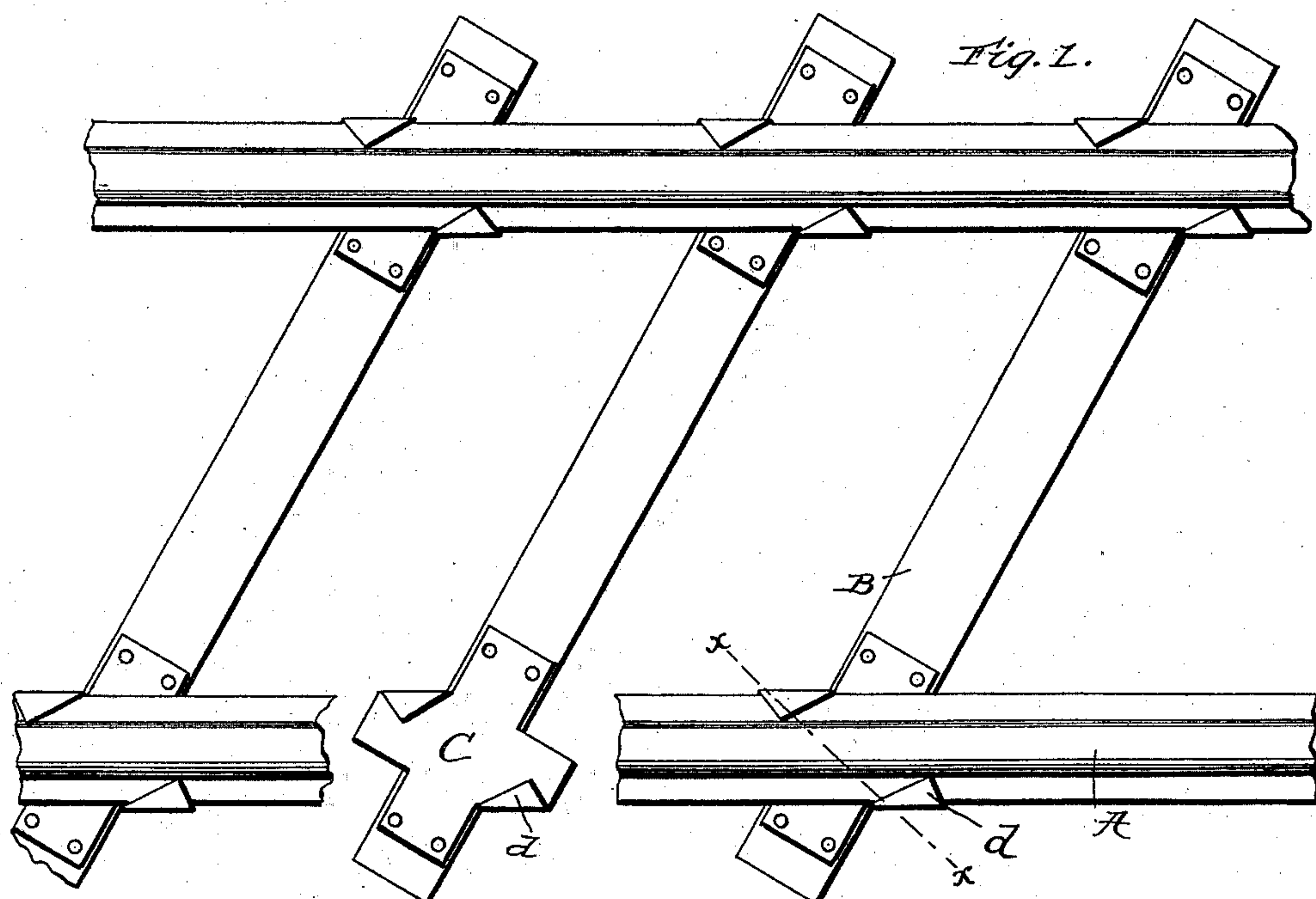


Fig. 4.

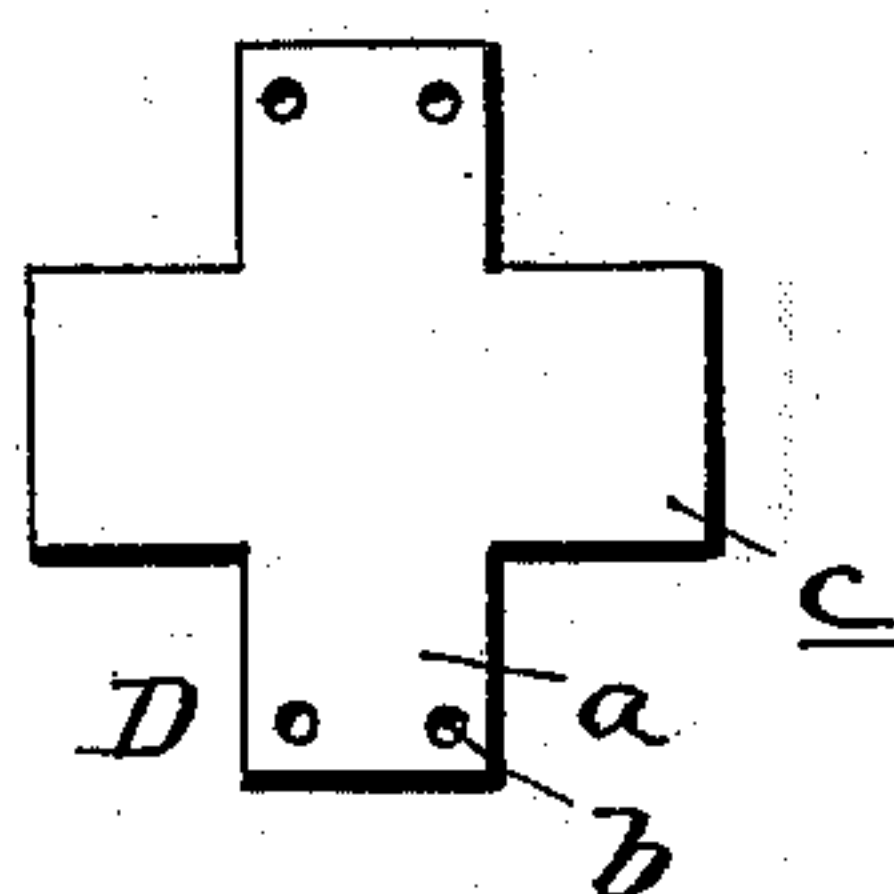


Fig. 2.

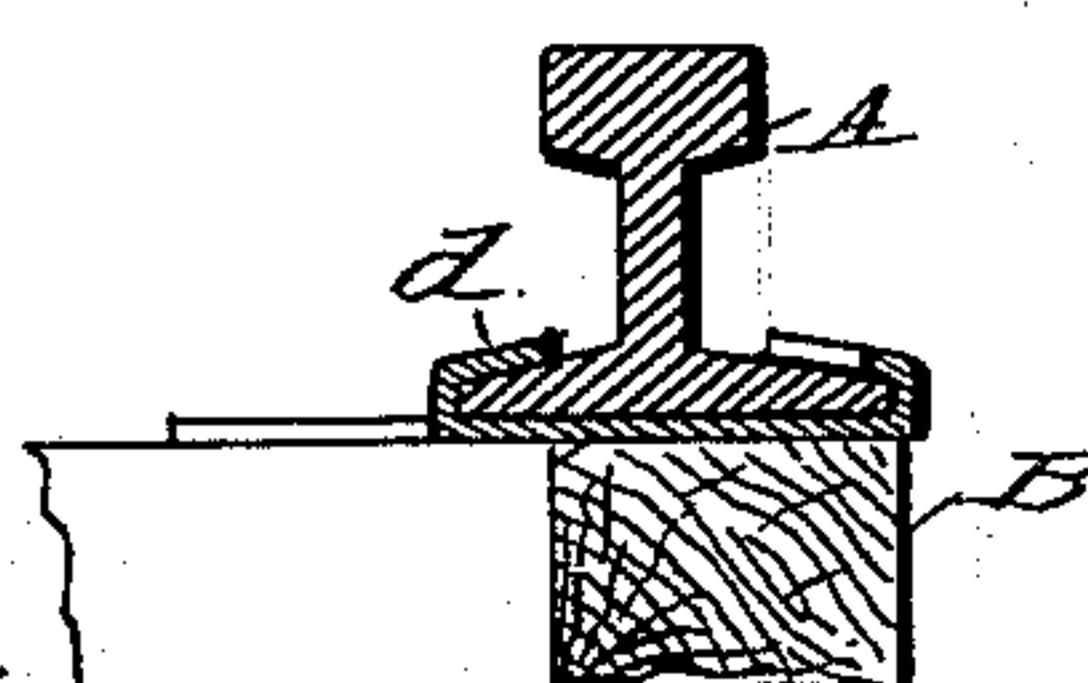


Fig. 5.

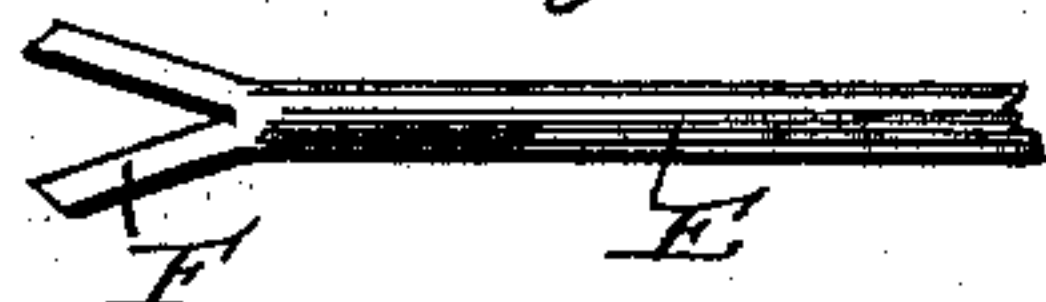
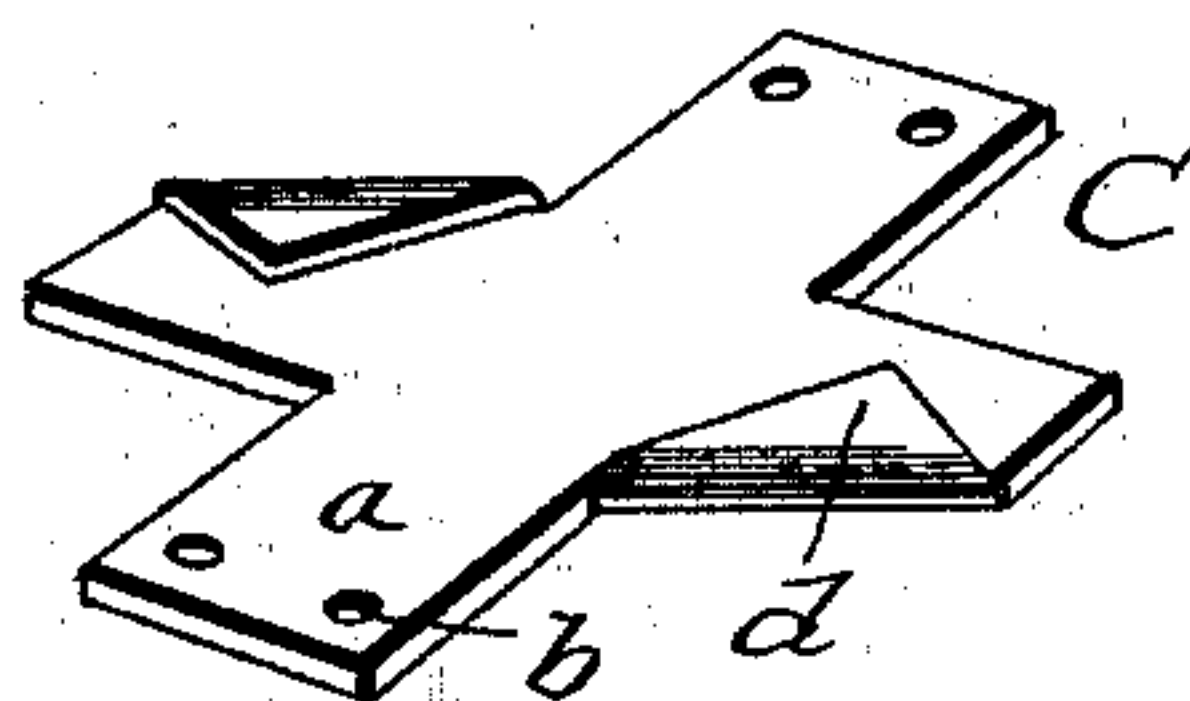


Fig. 3.



Witnesses:

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UNITED STATES PATENT OFFICE.

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RAILWAY.

SPECIFICATION forming part of Letters Patent No. 578,896, dated March 16, 1897.

Application filed September 8, 1896. Serial No. 605,084. (No model.)

To all whom it may concern:

Be it known that I, JOHN ISRAEL NEWBURG, a citizen of the United States, residing at Vicksburg, in the county of Warren and State of Mississippi, have invented certain new and useful Improvements in Railways; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in railways, and has for its general object to provide a railway in which the sleepers or ties are so arranged and the rails are so connected thereto as to effectually prevent casual spreading of the rails and also resist efforts of mischievous persons to spread the rails, and thereby wreck trains.

Other objects and advantages of my invention will be fully understood from the following description and claims when taken in conjunction with the annexed drawings, in which—

Figure 1 is a detail plan view of a railway constructed in accordance with my invention with one of the track-rails partly broken away. Fig. 2 is a detail section taken in the plane indicated by the line *xx* of Fig. 1. Fig. 3 is a perspective view of one of the rail-chairs. Fig. 4 is a plan view of the blank from which each rail-chair is formed, and Fig. 5 is a view of an improved implement employed in constructing the track.

Referring by letter to the said drawings, A indicates the track-rails of my improved railway, which may be of the ordinary or any other suitable construction.

B indicates the sleepers or ties, and C indicates the rail-chairs, which serve to effect a strong and durable connection of the rails to the sleepers or ties, as will be presently described.

The sleepers or ties B may be of the usual or any other suitable form and construction, but instead of being arranged perpendicular or at right angles to the rails A they are disposed at an acute angle thereto, as shown in Fig. 1, so as to enable the chairs C to better engage and hold the base of the rails, as will presently appear.

D indicates the blank, of sufficiently strong and rigid sheet metal, from which each of the chairs C is formed. This blank D is of the form of a Greek cross, and it is provided adjacent to the outer ends of the aligned arms or branches *a* with apertures *b* for the passage of the spikes which connect them to the sleepers or ties. The said arms or branches *a* are arranged upon and disposed in the direction of the length of the sleepers or ties B, as shown, so that the remaining arms or branches *c* will extend at an acute angle to the rails A, and said arms or branches *c* have their outer corners bent upwardly, as indicated by *d*, for a purpose presently pointed out.

In carrying out my invention the chairs C are placed upon the sleepers or ties in such a position that the inner edges of the upwardly and inwardly turned portions *d* will be parallel with the rails A. Said rails are then placed upon the body of the chairs between the portions *d*, after which the chairs are swung into the position shown in Fig. 1, so as to enable the portions *d* to engage the rail-bases, as shown, and are then attached to the sleepers or ties by nails or spikes. In virtue of the shape of the chairs C and the manner in which they are arranged upon and secured to the peculiarly-disposed ties or sleepers it will be seen that the bent portions *d* of each of the chairs will engage the rails at different points in the length thereof, and thereby better serve to prevent casual spreading of the rails and better resist the efforts of mischievous persons to spread the rails or otherwise displace the same.

In order to tighten the portions *d* of the chairs upon the rail-bases when they do not fit the same, I prefer to employ the implement E. (Shown in Fig. 5.) This implement E is provided at one end with the divergent branches F, and when these branches are placed one above and one below the arms or branches *c* of the chairs and the outer end of the implement is struck it will be seen that the arm or branch will be forced over upon the base of the rail and tightly against the same, so as to securely fasten the rail upon the sleeper or tie, as shown.

It will be observed from the foregoing that

while my improved chairs will effect a strong and durable connection of the rails to the sleepers or ties they will not interfere with the free contraction and expansion of the rails
5 incident to changes in temperature.

When desired, the chairs C may be formed of cast metal.

Having described my invention, what I claim is—

10 1. The railway described comprising the rails, the sleepers or ties arranged beneath the rails and disposed at an acute angle thereto and the chairs formed from cruciform blanks of sheet metal; the said chairs being arranged
15 beneath the rails and upon the sleepers or ties and having the alined arms or branches *a*, extending in the direction of the length of the sleepers or ties and connected thereto and the arms *c*, extending at right angles to the
20 arms *a*, and the sleepers or ties and having

the portions *d*, bent over upon the base of the rails, substantially as specified.

2. The railway comprising the rails, the sleepers or ties arranged beneath the rails and disposed at an acute angle thereto, and the
25 cruciform chairs arranged beneath the rails and upon the sleepers or ties and having the alined arms or branches *a*, extending in the direction of the length of the sleepers or ties and connected thereto and the arms *c*, ex- 30
tending at right angles to the arms *a*, and the sleepers or ties and having the portions *d*, extending over the base of the rails, substantially as and for the purpose set forth.

In testimony whereof I affix my signature 35
in presence of two witnesses.

JOHN ISRAEL NEWBURG.

Witnesses:

D. J. SHLENKER,
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