

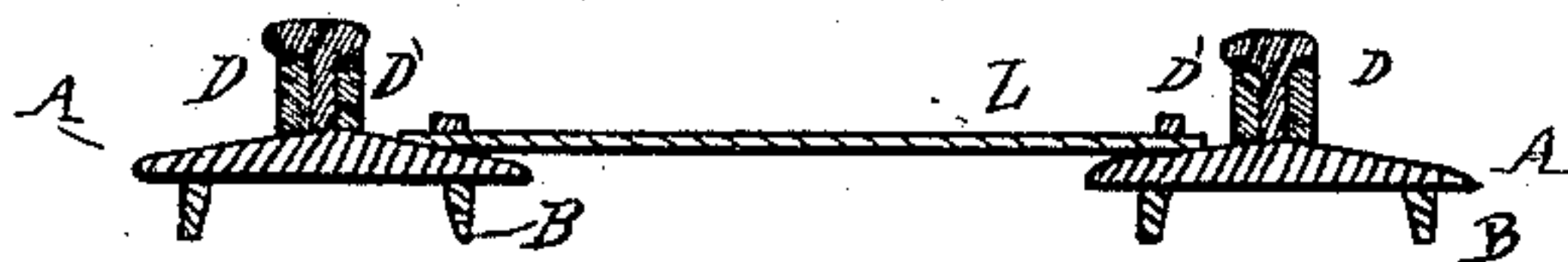
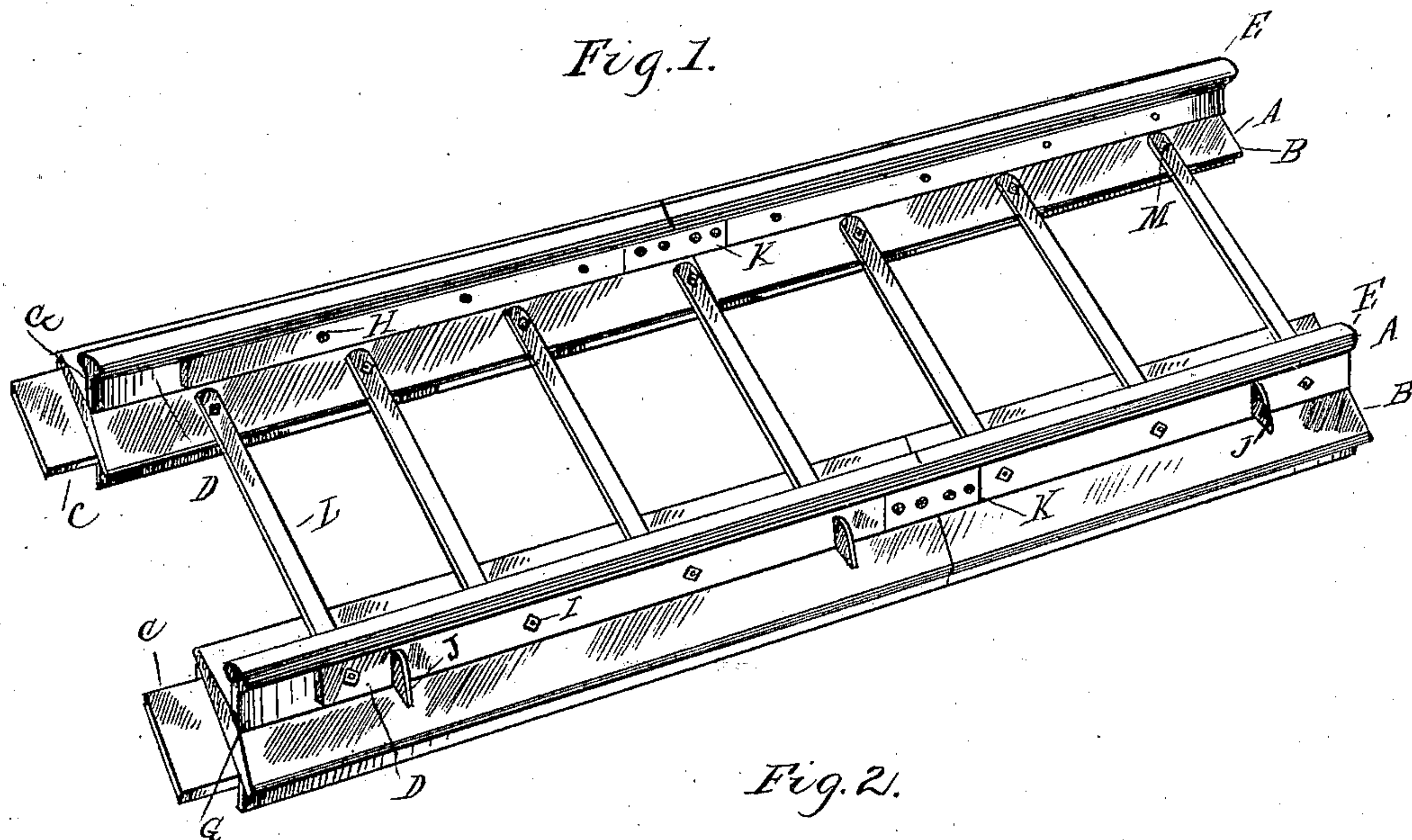
(No Model.)

J. T. CAMPBELL.

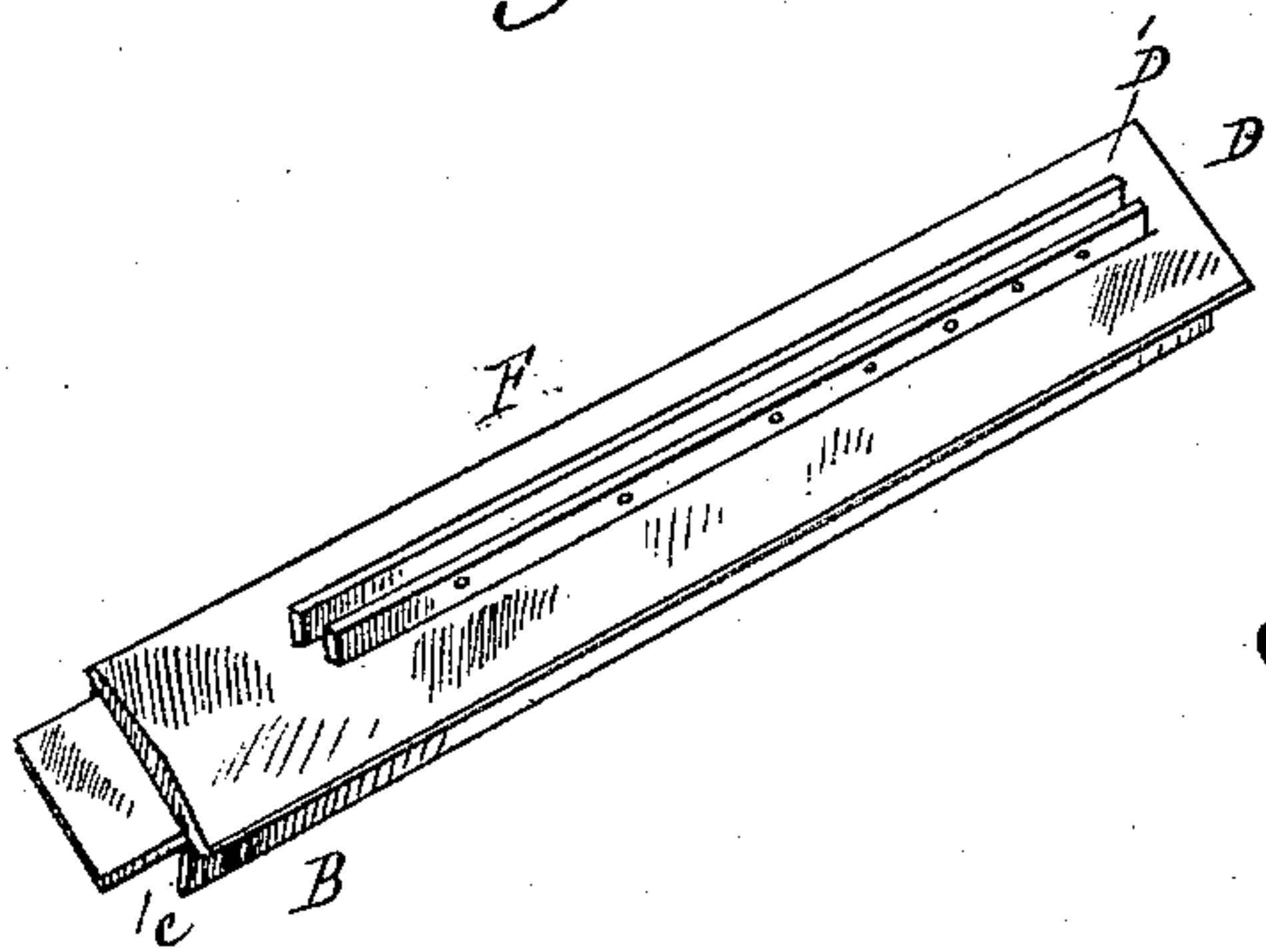
RAILWAY.

No 310,878.

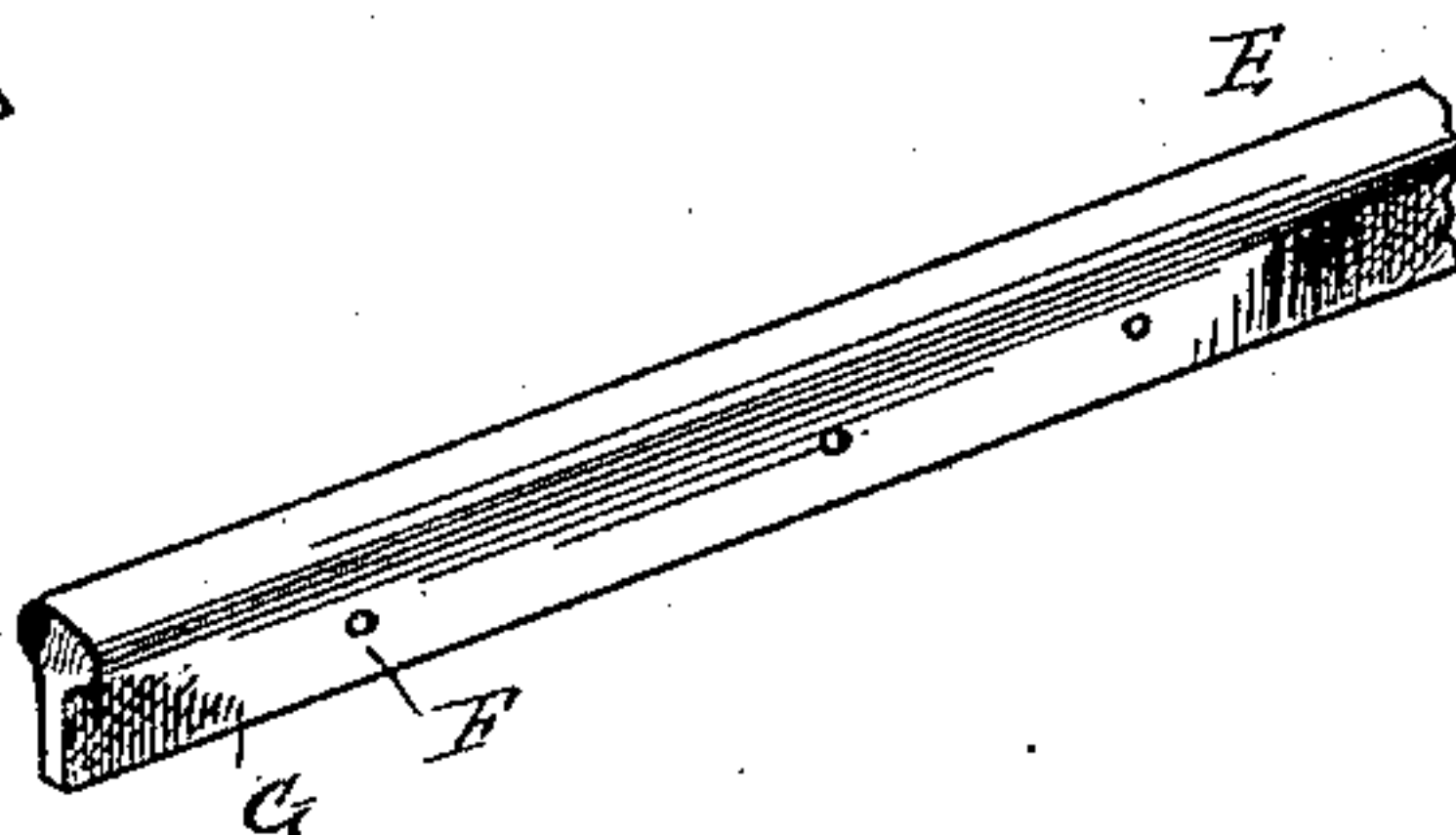
Patented Jan. 20, 1885.



*Fig. 3.*



*Fig. 4.*



WITNESSES  
J. S. [Signature]  
E. S. Siggers.

J. T. Campbell  
INVENTOR  
by C. A. Brown & Co  
Attorneys



# UNITED STATES PATENT OFFICE.

JOHN THOMAS CAMPBELL, OF EASTON, ILLINOIS.

## RAILWAY.

SPECIFICATION forming part of Letters Patent No. 310,873, dated January 20, 1885.

Application filed June 4, 1884. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN T. CAMPBELL, a citizen of the United States, residing at Easton, in the county of Mason and State of Illinois, have invented a new and useful Railway, of which the following is a specification, reference being had to the accompanying drawings.

This invention has relation to railway-tracks designed to be made entirely of iron in order to dispense with the use of wooden ties now universally used to the great detriment of our forests; and it consists in the construction and novel arrangement of parts, as will be hereinafter fully described, and particularly pointed out in the claims.

Figure 1 is a view in perspective of a section of railway-track embodying my improvements. Fig. 2 is a transverse sectional view of the same. Fig. 3 is a perspective view of one of the flanged sleepers, the rail being removed; and Fig. 4 is a perspective of a section of one of the track-rails.

Referring by letter to the accompanying drawings, A A designate the sleepers, which are of iron, provided with vertically-depending parallel flanges B B near to their edges. These sleepers A A are cast quite broad, and in length they are the size of the rails that are to be laid on them. At one end each sleeper A is provided with a projection, C, which extends out from between the flanges B B on the under face of the sleeper, and this projection is intended to enter between the flanges B B of the next sleeper when building the track. On the upper face of the sleeper and along its middle portion are cast the longitudinal flanges D D', having a space between them for the web of the track-rail E, and these flanges D D' incline very slightly toward each other, and are provided with bolt-holes F, as are also the webs G of the track-rail E for the bolts H, which secure the rail in place, nuts I being employed to hold the bolts in their seats. The outer flange, D, of the sleeper is strengthened by short ribs J, cast with the sleeper and flange D. The flanges D D' do not extend quite to the ends of the sleeper, in order to make provision for the rail-joints. The rails E therefore project at each end of the flanges D D', and fish-plates K are provided on both sides of the webs of the rails, and are secured

in place by bolts and nuts in the usual manner of securing rail-joints. The sleepers of one side of the track are connected to those of the other side by small flat iron ties, L, secured in place upon their upper faces by bolts M, passed up through the sleepers and ties, and held in place by nuts N. The sleepers are laid upon the road-bed, the flanges B B sinking into the ground, and the road is ballasted in the usual manner.

By constructing the railway-track in this manner wooden ties are entirely dispensed with and bolts take the places of spikes. There is no danger of a rail turning or breaking, as the rails have continuous bearings throughout; and if from any cause a rail should be broken, it will not leave its seat between the flanges D D'. When the rails wear out, they can be easily replaced without having to renew the sleepers or ties, and there is no wood to rot or be burned out.

In order to define the nature, advantages, and object of the present invention, I would have it understood that prior to my invention sleepers have been provided with depending flanges at each side and longitudinal flanges on the upper face, between which the web of the track-rail was secured. I am also aware that these longitudinal flanges have been strengthened or braced by short ribs, and also that the end of one sleeper has been provided with projections to fit in recesses of the other sleeper. These constructions I hereby dis-

claim.

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

1. The combination of the sleepers having the vertical depending flanges B on their under faces at the sides, and the rectangular projections C, extending beyond one end of the sleepers, between the flanges and below the upper edge of the base portion of the said sleepers, the projection of one section fitting within the space between the flanges of the other section, so that the upper face of the two sleepers will be flush and in a line with each other, as set forth.

2. The combination, with the sleepers having the vertical depending flanges B B on their under faces, near the side edges of the sleepers, and the projections C at one end

thereof, the projection of one sleeper fitting  
neatly between the flanges of the adjoining  
sleeper, and flanges D D' extending along the  
middle portions of their upper faces, but not  
5 to the ends, of the rail having its web inclosed  
by the flanges D D', bolts and nuts for hold-  
ing the rail in place, and rail-joints for con-  
necting the several sections, the fish-plates K  
of said joints occupying the space on the

sleepers left by the flanges D D', as and for 10  
the purpose set forth.

In testimony that I claim the foregoing as  
my own I have hereto affixed my signature  
in presence of two witnesses.

JOHN THOMAS CAMPBELL.

Witnesses:

JAMES NASH,  
T. L. MORGAN.