J. H. AINSWORTH.

RAILROAD CROSSING.

No. 182,400. Patented Sept. 19, 1876.

Fig. 1.

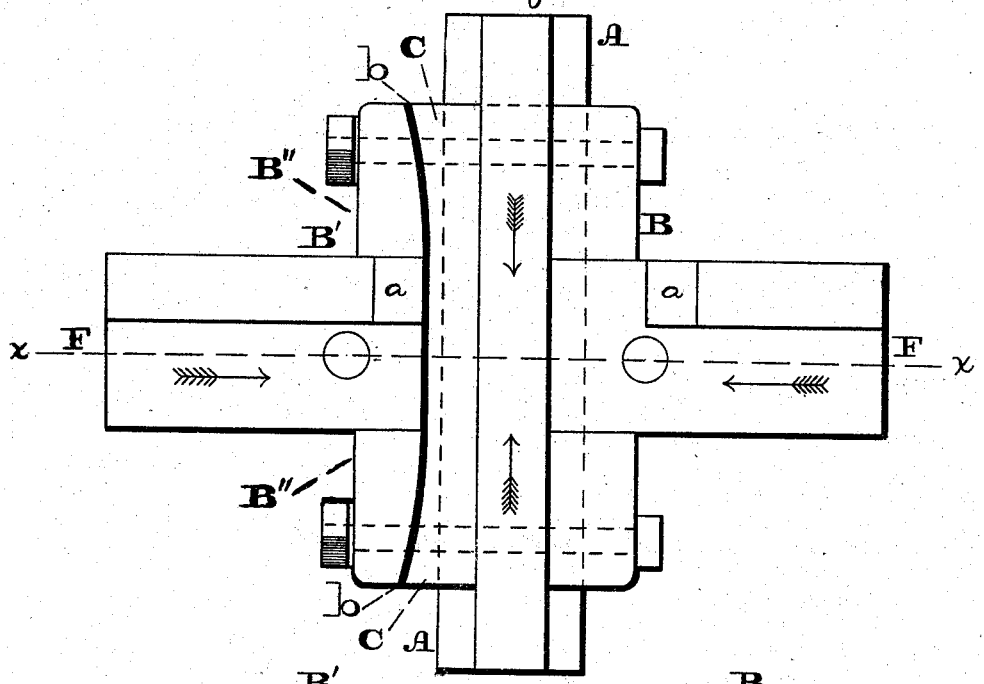


Fig. 2.

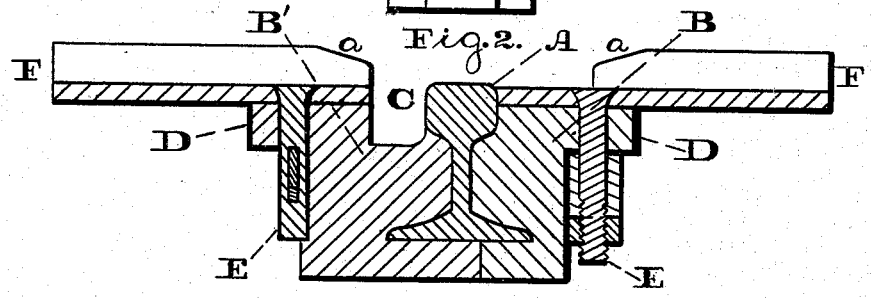


Fig. 3.

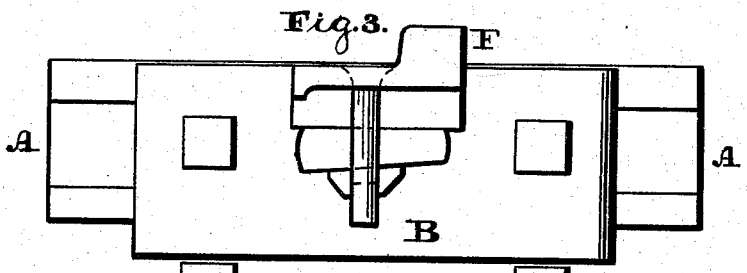
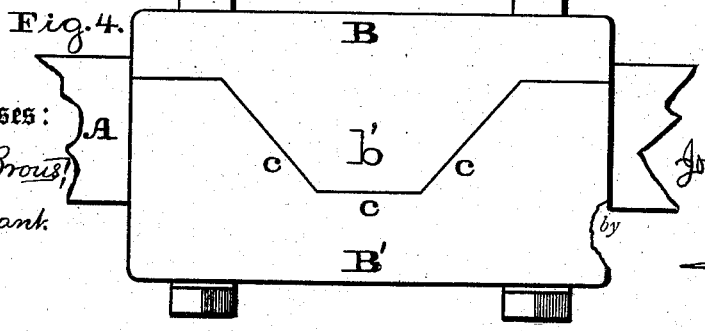


Fig. 4.



Witnesses:

Lewis F. Brous!

A. P. Grant.

Inventor:

John H. Ainsworth

by John A. Diedesheim

Attorney.

UNITED STATES PATENT OFFICE.

JOHN H. AINSWORTH, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN RAILROAD-CROSSINGS.

Specification forming part of Letters Patent No. **182,400**, dated September 19, 1876; application filed July 10, 1876.

To all whom it may concern:

Be it known that I, JOHN H. AINSWORTH, of the city and county of Philadelphia, and State of Pennsylvania, have invented a new and useful Improvement in Railway-Crossings; and I do hereby declare the following to be a clear and exact description of the nature thereof, sufficient to enable others skilled in the art to which my invention appertains to fully understand, make, and use the same, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a top or plan view of the crossing embodying my invention. Fig. 2 is a vertical section thereof in line *x x*, Fig. 1. Fig. 3 is a side view thereof, and Fig. 4 is a bottom view.

Similar letters of reference indicate corresponding parts in the several figures.

My invention relates to a crossing which is more especially designed for the tracks of street-cars with those of steam-cars.

The invention consists in securing the rails of one track to the fishing of the rails of the other track, thus providing a strong and practicable connection between the two sets of tracks.

Referring to the drawings, A represents a rail, which is of the order known as a T. To the sides of the rail there are bolted or otherwise clamped blocks or plates B B′, one of which embraces the base, web, and entire side of the head. The other block embraces the base, web, and under side of the head, and has on its upper side a guard-rail, B″, which leaves a channel, C, for the passage of the flange of the wheels. From the upper ends of the outer sides of the blocks B B′ there project plates or lugs D, in which are openings for the passage of pins or bolts E, by which the rails F, which cross the rails A, will be secured in position, said rails F having their ends set into the upper faces of the blocks B B′, and the adjacent portions resting on the plates D. The pins or bolts E may be slotted for the passage of a wedging-key, or threaded for a nut or nuts, whereby the rails F may be securely clamped to the plates B. The upper faces of the bases of the rails F and upper faces of the blocks B B′ and of the rail A will be flush. The inner ends of the rails F adjacent to the rail A will be sloped, as at *a*, and the outer ends of the inner sides of the guard-rail B″ will be flaring, as at *b*.

It will be seen that the rails A will be securely fished by the blocks B B′, and the latter afford firm attachment for the ends of the cross-rails F, whereby the crossing will be strong, serviceable, and reliable.

When the wheels reach the end of one of the rails F they are let down gently, owing to the slope *a*, and their flanges run on the rail A transversely until the treads of the wheels reach the sloping ends of the adjacent rails A, when the wheels ascend said slopes without striking or abruptness. The flaring ends of the guard-rail B″ properly guide the flanges of the wheels on the tracks A into the channel C, and prevent said flanges striking the exposed end of the rail F that is adjacent to the channel. The base of the block B will be constructed with a tongue, *b′*, which is of tapering form, and enters a recess or groove, *c*, in the block B′, thus connecting the bases of the two blocks by a lap-joint.

It will be seen that the two bases, as connected, provide broad bearing-surfaces for the rail at the parts liable to give, and thus a firm support and connection for the rail are provided.

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

1. The blocks B B′, secured to the rails A, and supporting and connecting the cross-rails F, substantially as and for the purpose set forth.

2. The plates or blocks B B′, with laterally-projecting plates D, substantially as and for the purpose set forth.

J. H. AINSWORTH.

Witnesses:

JOHN A. WIEDERSHEIM,

A. P. GRANT.