

(No Model.)

F. C. WEIR.
RAILWAY FROG.

No. 398,203.

Patented Feb. 19, 1889.

Fig. 1.

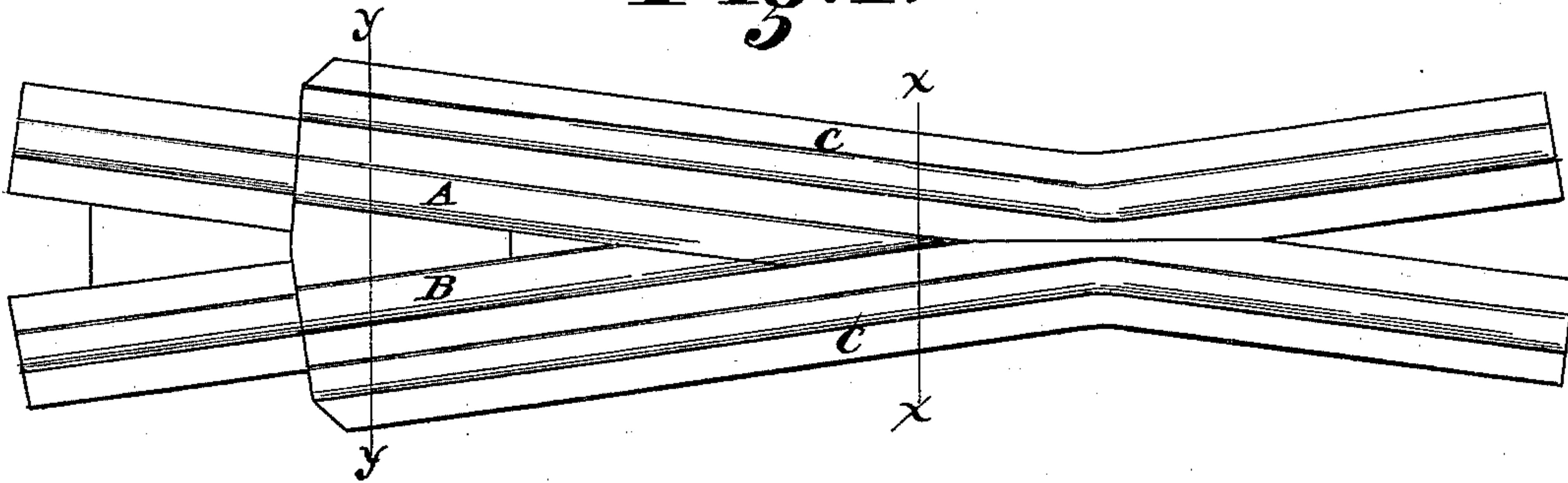


Fig. 2.

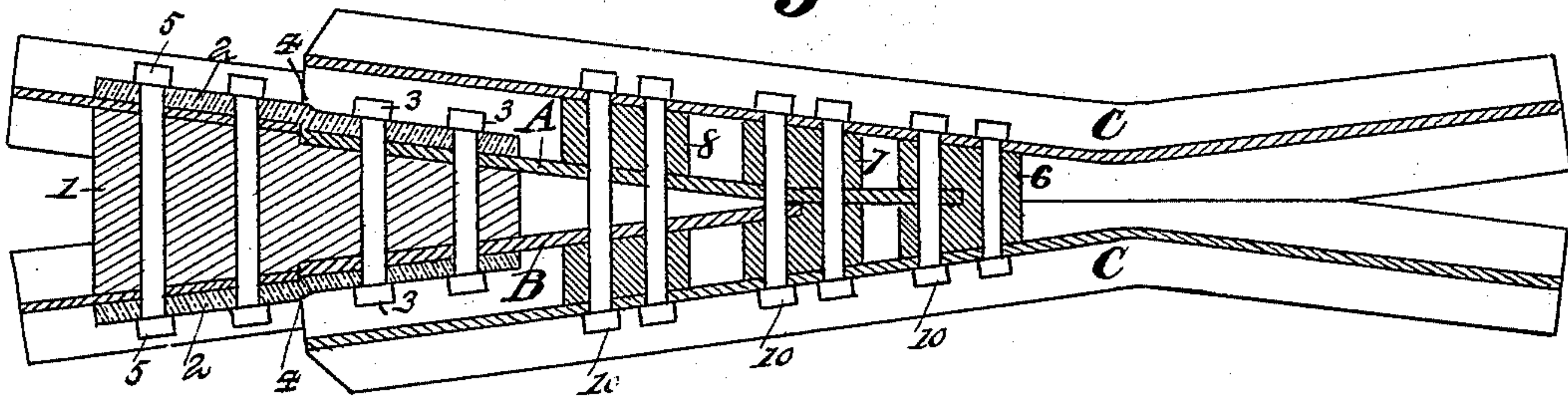


Fig. 3.

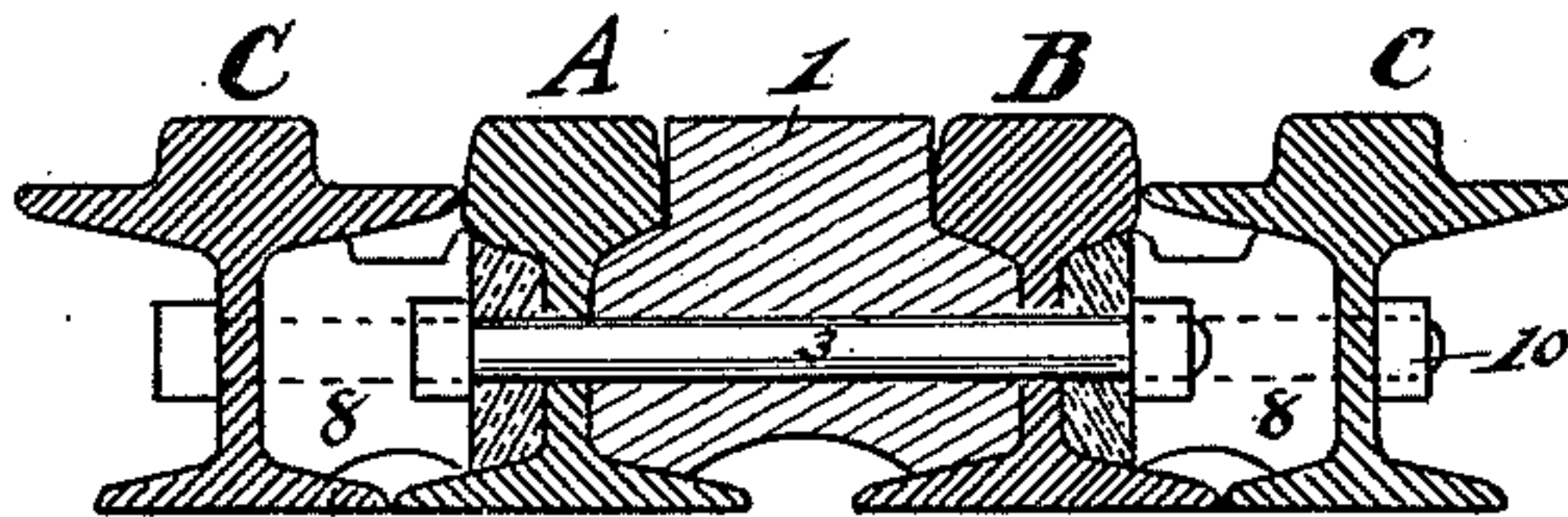
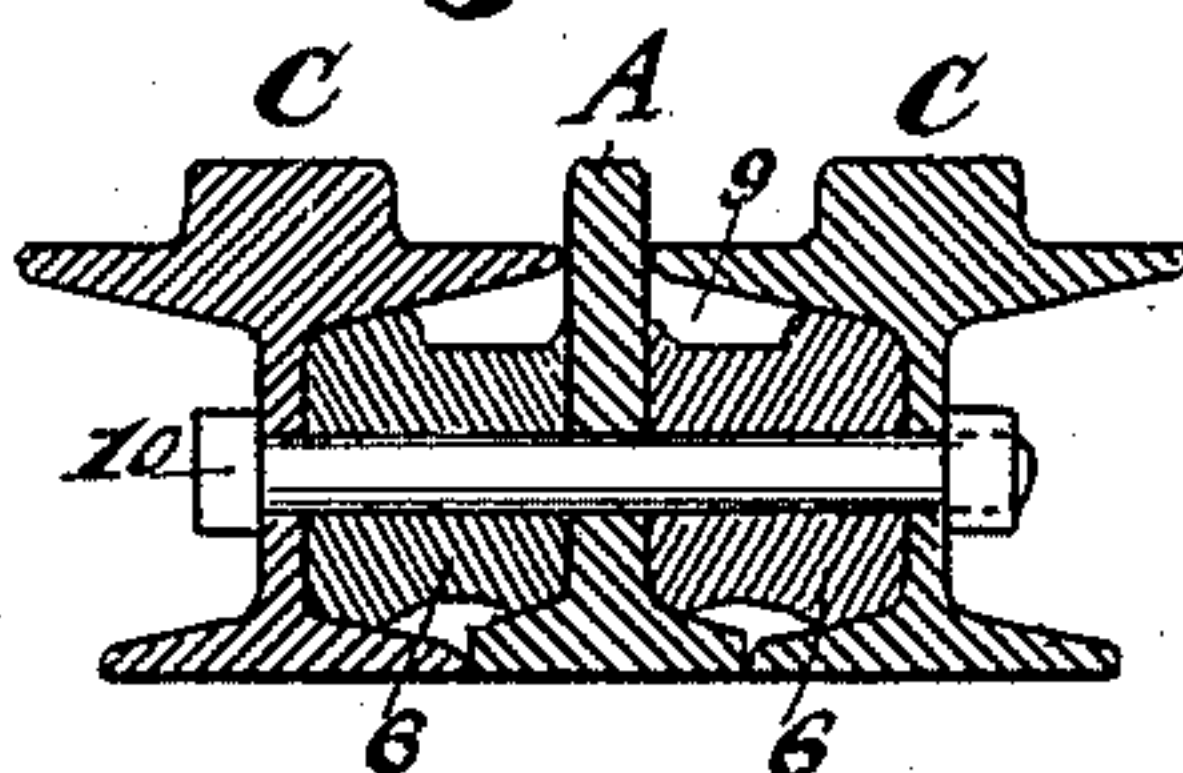


Fig. 4.



Attest

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UNITED STATES PATENT OFFICE.

FREDRIC C. WEIR, OF CINCINNATI, OHIO.

RAILWAY-FROG.

SPECIFICATION forming part of Letters Patent No. 398,203, dated February 19, 1889.

Application filed May 24, 1888. Serial No. 274,970. (No model.)

To all whom it may concern:

Be it known that I, FREDRIC C. WEIR, of Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Railway-Frogs, of which the following is a specification.

My invention relates to the construction of a frog where the center or side-bearing girder-rails are employed.

I have shown my invention employed with the center girder-rails; but it will be obvious that a side girder-rail may be substituted for the center girder-rail without changing the form or the construction of the parts. It is expensive to cut and fit girder-rails to form a point for the frog. Besides, it is difficult to fit the parts together and make a reliable job. My invention overcomes this difficulty, all of which will be fully explained in the description of the accompanying drawings, making a part of this specification, in which—

Figure 1 is a top plan view of my improvement. Fig. 2 is a similar view with the head and top flanges of the rail removed. Fig. 3 is a section on line *y y*, Fig. 1. Fig. 4 is a section on line *x x*, Fig. 1.

The frog-point is composed of two T-rails, A B, which are beveled so as to fit each other in the ordinary manner of constructing railroad-frogs.

A represents the long-pointed and B the short-pointed rail.

C represents girder-rails, which are bent to form guard-rails and main-line rails, as shown in Fig. 2.

1 represents filling-blocks, preferably made of cast-iron and shaped to fit the flanges, webs, and head filling the space of the point-rails A B, as shown in Fig. 3.

2 represents fish-plates abutting the outer webs of the rails A B.

3 represents bolts passing through the fish-plates through the webs of the rails A B and through the filling-block 1. These secure the parts together, making a firm strong point of T-rails. These fish-plates project, as at 4, behind the heel of the point-rails, so as to provide means for securing the girder-rails C to said fish-plates by means of bolts 5. The filling-block 1 is preferably projected back between the webs of the rails A B, so as to hold

them the proper distance apart, and the bolts secure them in fixed positions.

6 7 8 represent filling-blocks forward of the filling-block 1. The rails A B C are secured together by the bolts 10, passing through the webs of said rails and said filling-block or filling-blocks. I have shown three blocks; but it is obvious that one block, 7, might be prolonged to accomplish the same purpose; but I deem it better to employ three, so as to get the strength with the least amount of metal. These blocks are preferably of the shape in cross-section shown in Fig. 4, the end of the blocks being made to fit the web and top and bottom flanges of the rails and cored out at 9.

By the means here employed I am enabled to make a cheap, strong, and reliable frog of T and girder rails.

Having described my invention, what I claim is—

1. A frog consisting of the pointed T and girder rails, the interposed filling-block 1, the fish-plates 2, and the tie-bolts 3 and 5, extending through the T and girder rails, the filling-block, and the fish-plates, substantially as described.

2. A frog consisting of the pointed T and girder rails, the latter having laterally-extending flanges resting against the sides of the former, the interposed filling-block, the fish-plates 2, and the tie-bolts 3 and 5, extending through the T and girder rails, the filling-block, and the fish-plate, substantially as described.

3. A frog composed of T-rails A B, the girder-rails C, the filling-blocks 1 and 7, and through-bolts 3 5 10, passing through the webs of said rails and said filling-blocks, substantially as herein specified.

4. A frog-point composed of the T-rails A B, the filling-block 1, the bent fish-plates 2, projecting beyond the said rail, and the parts secured by bolts 3, substantially as specified.

In testimony whereof I have hereunto set my hand.

FREDRIC C. WEIR.

Witnesses:

ROBERT ZAHNER,
J. WATSON SIMS.