

D. C. PIERCE.

Improvement in Railway Frogs.

No. 124,623.

Patented March 12, 1872.

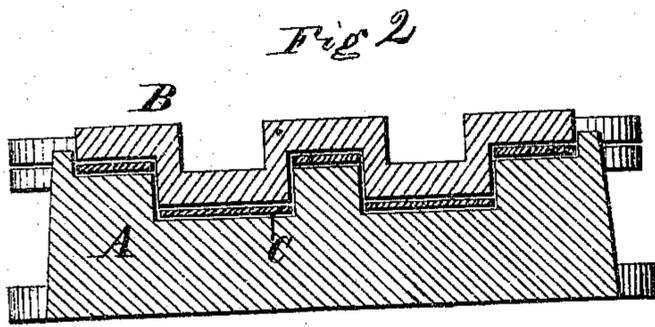
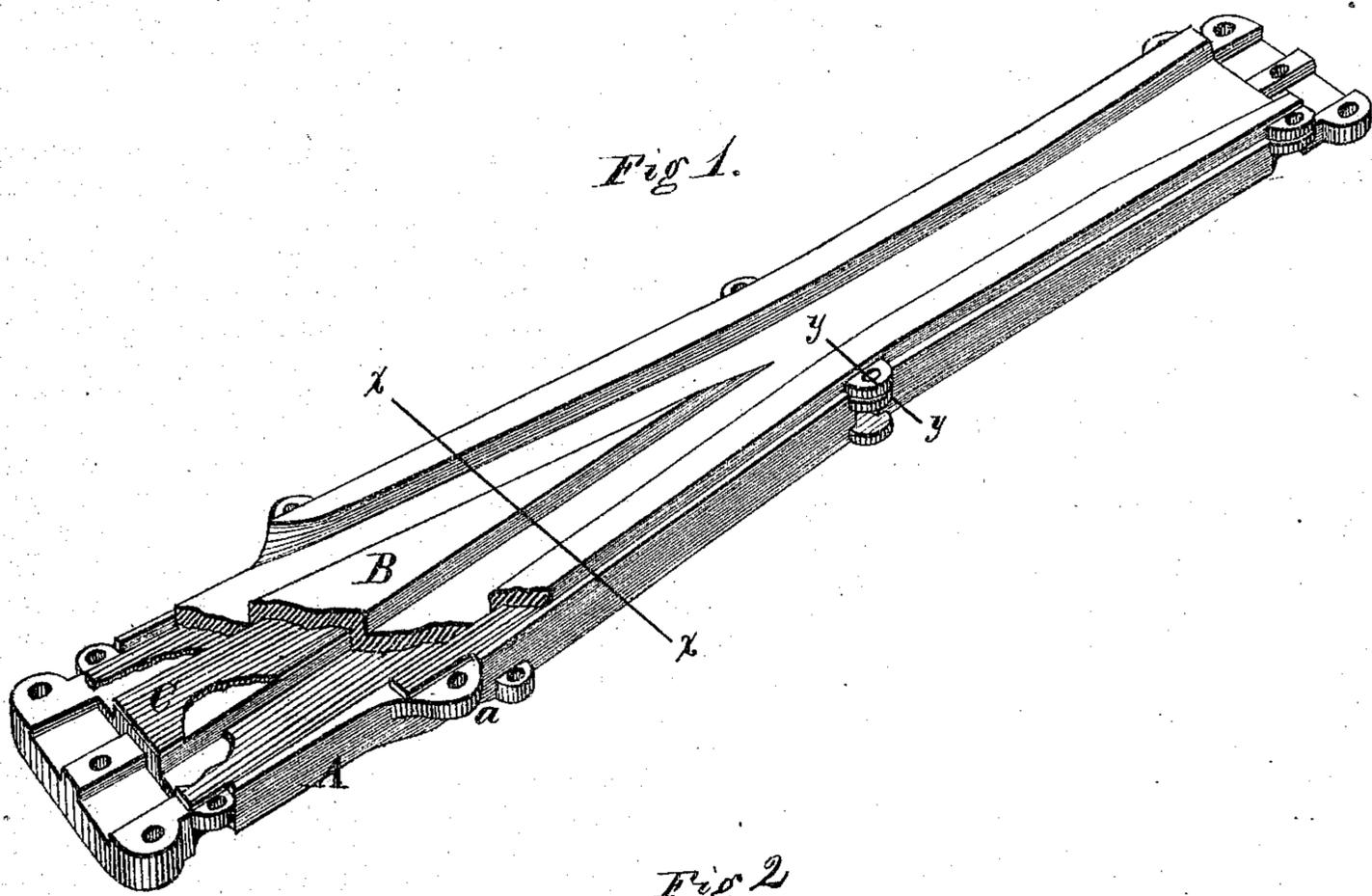
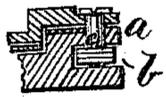


Fig 3.



Witnesses.

Larry King.
P. J. Dodge

Inventor,
D. C. Pierce
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his attys.

UNITED STATES PATENT OFFICE.

DENISON C. PIERCE, OF CLAYTON, NEW YORK.

IMPROVEMENT IN RAILWAY FROGS.

Specification forming part of Letters Patent No. 124,623, dated March 12, 1872.

SPECIFICATION.

To all whom it may concern:

Be it known that I, DENISON C. PIERCE, of Clayton, in the county of Jefferson and State of New York, have invented certain Improvements in Railway Frogs, of which the following is a specification, reference being had to the accompanying drawing.

My invention relates to railway frogs; and consists in constructing the same of two pieces—to wit., a cast-iron bed-plate and a steel or chilled faced iron cap—both constructed as hereinafter described.

Figure 1 is a perspective view of my frog, with a portion of the cap broken away. Fig. 2 is a vertical cross-section on the line *x x* of Fig. 1, and Fig. 3 is a vertical cross-section on the line *y y* of the same figure.

In constructing my improved railway frog I cast an iron bed-plate, A, with a point, and guard-rails and ends similar to those of the ordinary frog, and as clearly shown in Figs. 1 and 2. I then cast a cap, B, of steel or of iron, with a chilled face, of the required form to fit upon the base-plate A, and with its face of the form of the bearing-surface of the frog. Both the base-plates and the cap I provide with ears *a* or other suitable contrivances for the insertion of bolts for securing them together. The ears of the base-plate may consist of an upper and lower projection, just far enough apart to receive and prevent from turning a nut, *b*, so that the bolt may be

screwed into the nut, as clearly shown in Fig. 3. The base-plate A and cap B, thus constructed, I then connect together, first placing between any suitable elastic substance, *c*, as rubber, wood, leather, or other elastic material, as shown in Fig. 2.

It is obvious that the parts may be secured together by bolts fastened by keys or nuts, or by any suitable mechanical contrivance.

The advantages of a frog thus constructed are many and important. Consisting of only two parts, it is easily constructed, and can be readily put down, and when once down the bed-plate becomes a fixture, and need never be taken up. As the cap is made of steel or chilled faced iron, it will wear a long time, and when worn out can be quickly removed and its place supplied by another without interfering with the running of trains. The elastic material prevents the jar and concussion that occur with solid frogs, and in this way also adds to its durability.

Having thus described my invention, what I claim is—

The bed-plate A, provided with projections on its face similar to those of an ordinary frog, in combination with a cap, B, constructed and arranged to conform to it, substantially as and for the purpose set forth.

D. C. PIERCE.

Witnesses:

J. MCKENNEY,
H. B. MUNN.