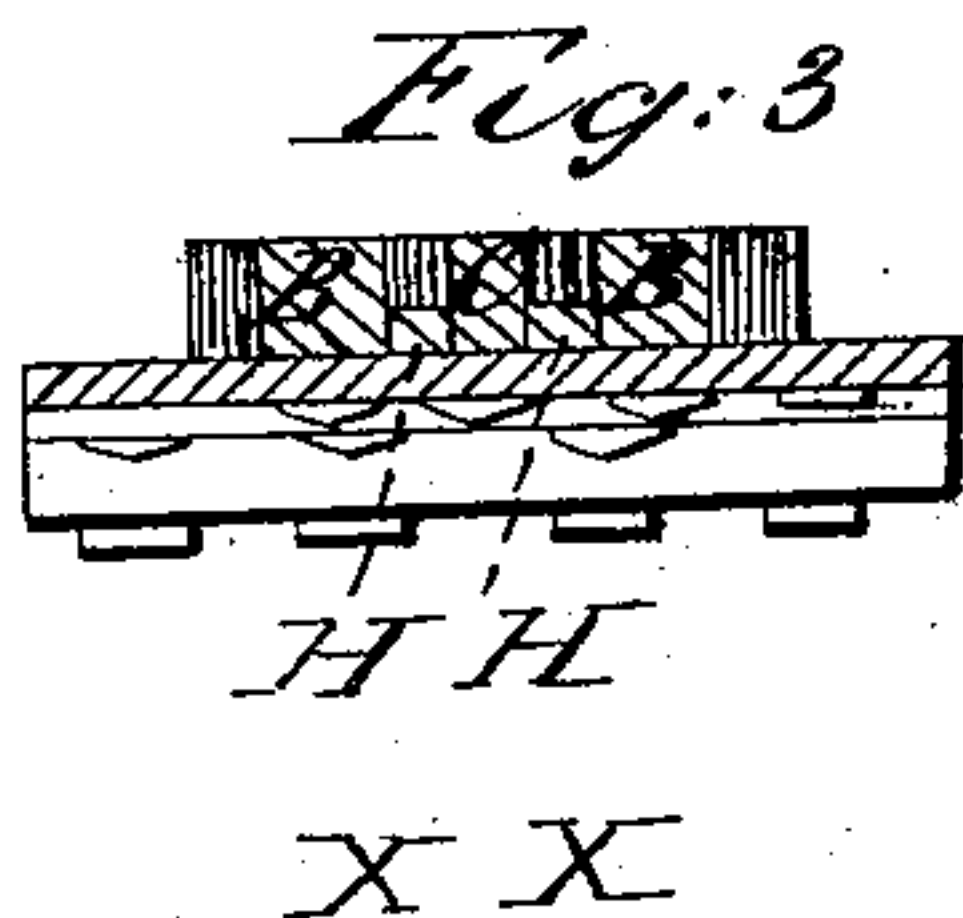
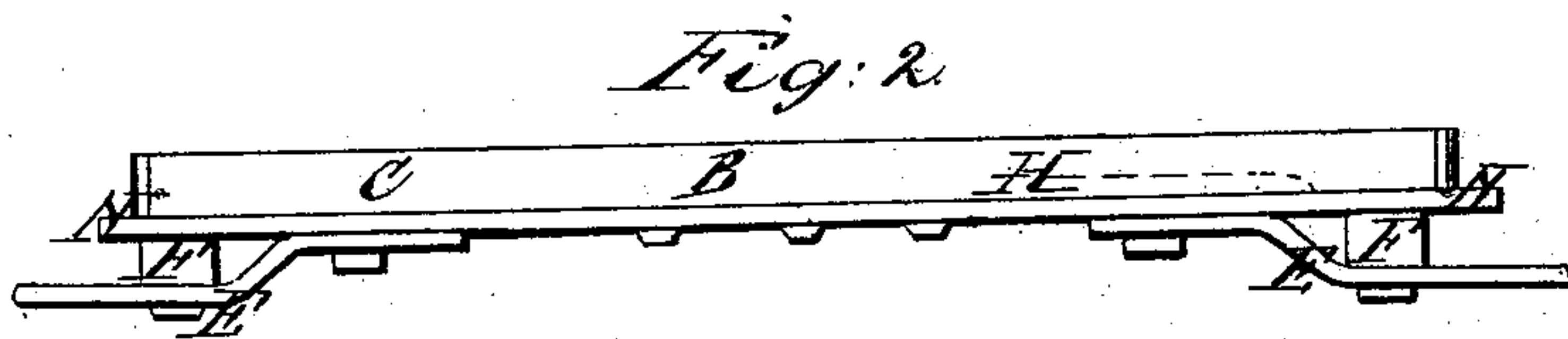
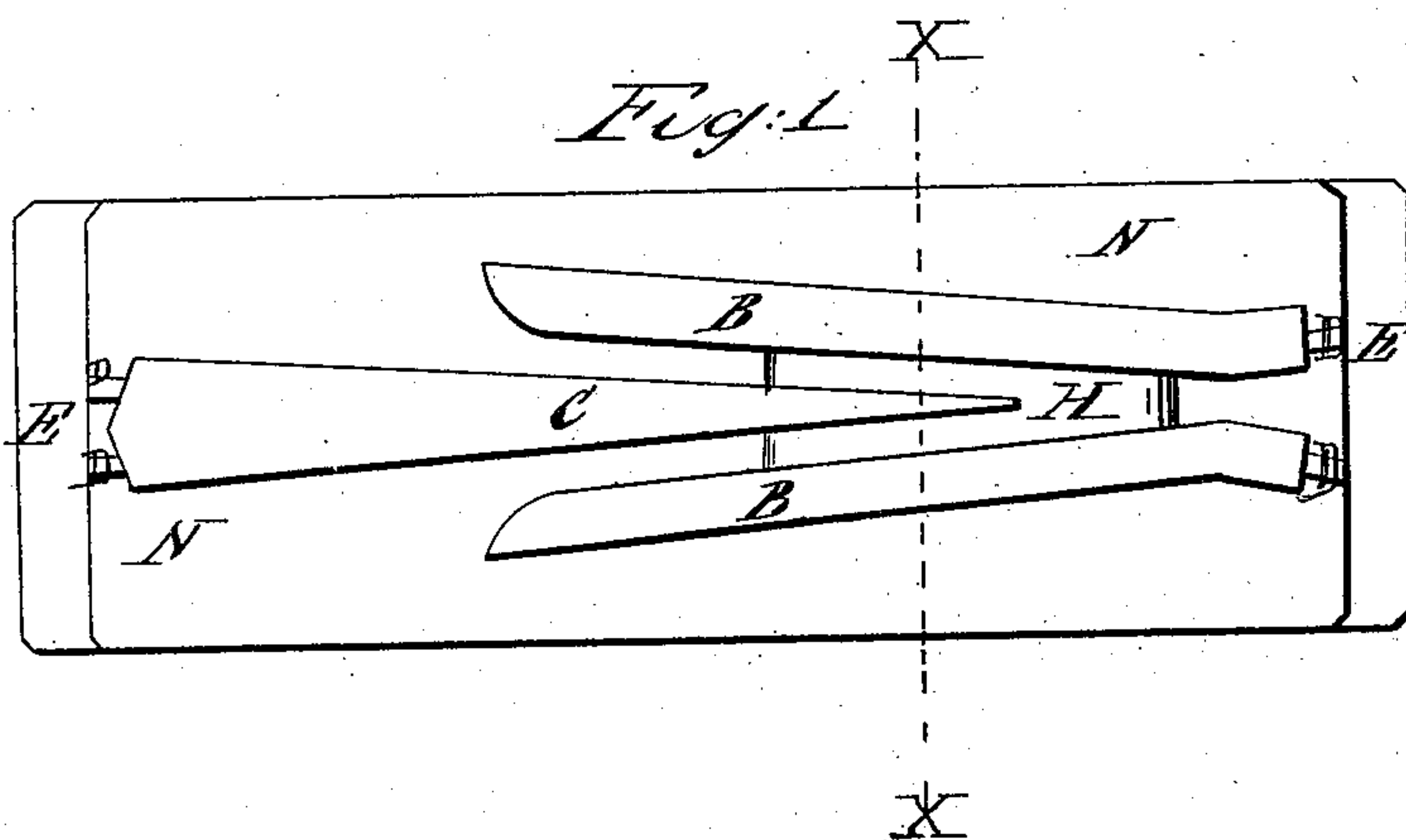


*J. Gray,*  
*Railroad Frog,*

*N<sup>o</sup> 82,937.*

*Patented Oct. 13, 1868.*



*Witnesses*

*E. L. Lindley*  
*J. H. Sprague*

*Inventor*

*Josiah Gray*

# UNITED STATES PATENT OFFICE.

JOSIAH GRAY, OF CHICAGO, ILLINOIS.

## IMPROVED RAILWAY-FROG.

Specification forming part of Letters Patent No. **82,937**, dated October 13, 1868.

*To all whom it may concern:*

Be it known that I, JOSIAH GRAY, of Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Railroad-Frogs; and I do declare that the following is a true and accurate description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, and being a part of this specification.

Figure 1 is a plan or top view. Fig. 2 is a side view, and Fig. 3 is a sectional view from *x* to *x*.

The object of this invention is the construction of a railway-frog in such a manner as to give the greatest amount of strength and durability with the least material.

Upon the upper side of the plate N are firmly secured dividing rail-point C, guide-bars B, and shield-plate H. To the under side, and near the ends of plate N, are firmly secured the ogee-chairs E. The bars F are placed between chairs E and plate N. D are slots to receive the ends of the rails.

Having described and named the various parts of my invention, I will now explain the

uses of the same. The frog is connected, in the usual manner, to the rails, and rests upon suitable foundation, and is secured by spikes or bolts. In the passage of the wheels over the frog, the flange traverses over shield H and raises the wheel, thus preventing any undue wear of the point C. The ogee-plates E form very secure chairs, and, with the aid of bars F, the whole forms a very complete apparatus for the purposes intended.

The point C is solid, and is constructed in one piece.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The shield H, constructed substantially as described, in combination with the point C and guard-bars B, as and for the purposes set forth.

2. The combination of the chairs E, bars F, guard-bars B, shield H, and point C, all operating substantially as set forth and shown.

JOSIAH GRAY.

Witnesses:

H. S. SPRAGUE,  
E. L. LINDLEY.