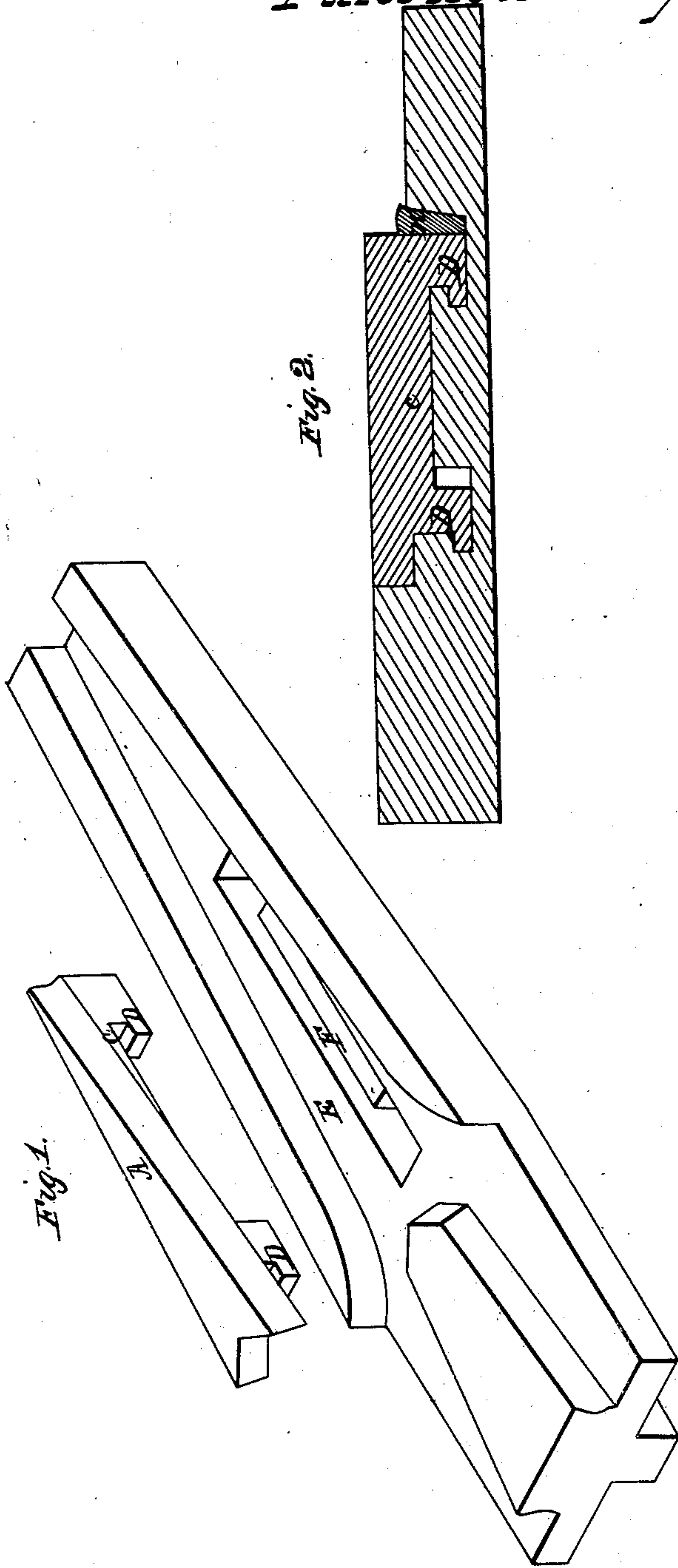


M. S. Curtis,

Railroad Frog,

Patented Aug. 10, 1852.

Nº 9,180.



UNITED STATES PATENT OFFICE.

M. S. CURTISS AND EDGAR ST. JOHN, OF BINGHAMTON, NEW YORK.

METHOD OF SECURING MOVABLE POINTS OF RAILROAD-FROGS.

Specification of Letters Patent No. 9,180, dated August 10, 1852.

To all whom it may concern:

Be it known that we, MARSHAL S. CURTISS and EDGAR ST. JOHN, both of Binghamton, in the county of Broome and State of New York, have invented certain new and useful Improvements in the Construction of Railroad-Frogs; and we do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing, and letters marked thereon, forming a part of this specification.

Our invention consists in the peculiar manner of constructing the shank of the movable point, with projections or hooks fitting a corresponding slot or channel formed with recesses in the bed-plate thereof, whereby said point is secured in its seat by a wedge shaped spike pressing against the end of the frog point and passing through said bed-plate into the frog block below, which forces said point close against the truncated end of the frog, and it may be further secured from any vertical or lateral movement by the insertion of bolts, horizontally, through its shank and said bed-plate, thus obviating the practical disadvantages arising from the present method, in general use, of drilling holes, vertically, through that part of said point most subject to the tread and friction of the flanges of the wheels, and lessening the expense of constructing, keeping the whole frog in efficient repair, and, consequently, augmenting its durability.

The accompanying drawing (Figure 1) represents a top view of the bed-plate and a separate view of the frog point removed from its seat, and Fig. 2 a section of the whole, with the movable point secured to its seat.

We construct the frog of cast iron, all, except the movable point, cast in one operation, in the shape and dimensions now in general use on railways. The movable point A, is

made of wrought iron, provided with a shank of about $1\frac{1}{2}$ inches wide, which shank is of a peculiar form to suit its seat. The body of said shank C, projects about 2, and the ends thereof about 4, inches, terminating in the form of hooks D D.

Formed in the bed-plate E, is a slot or channel F, extending from about 4 inches from the truncated end to 14 inches. This channel corresponds to the width of the shank C, and is as much longer than it as the length of one of the hooks D D, and at each end it is deepened to receive the projections on which the hooks are formed, and recesses are cut under said channel, and in toward the truncated end corresponding with, and for receiving, the hooks D D.

The frog and movable point thus constructed, the point is secured to its seat by placing it into the channel and sliding it up toward the truncated end, which forces the hooks D D to enter the recesses under the channel, and then inserting a spike H, which draws said movable point close against said truncated end. It may be further secured, from any lateral or vertical working, by inserting horizontal bolts through the bed-plate and shank, if desired.

What we claim as new in our invention, and desire to secure by Letters Patent, is,

The combination of the peculiarly formed shank of the frog point and its corresponding channel and socket, said point secured to its seat by spike and bolts, or their equivalents, substantially as described.

In testimony whereof we have hereunto signed our names before two subscribing witnesses.

M. S. CURTISS.
E. ST. JOHN.

Witnesses:

T. S. HARDING,
WM. M. WATERMAN.