H. S. Chapin,

Railroad Frog,

No. 78,429, Patented June 2, 1868.

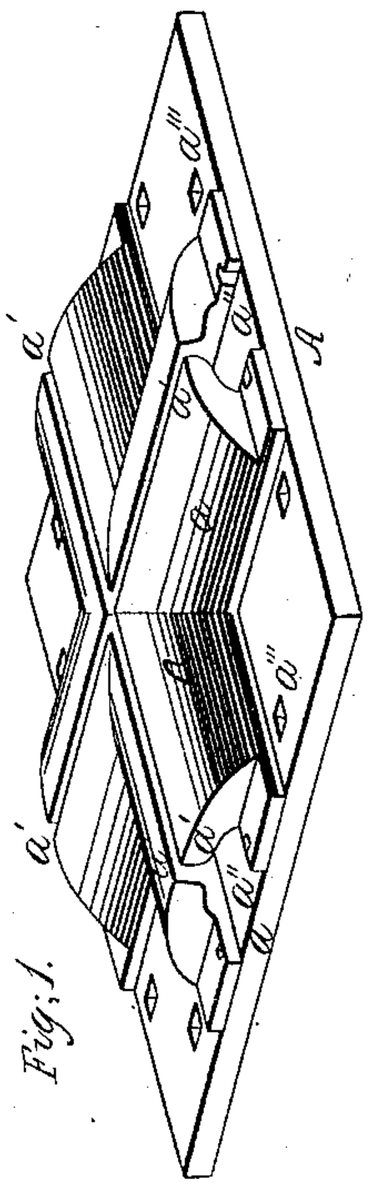

Fig. 1.

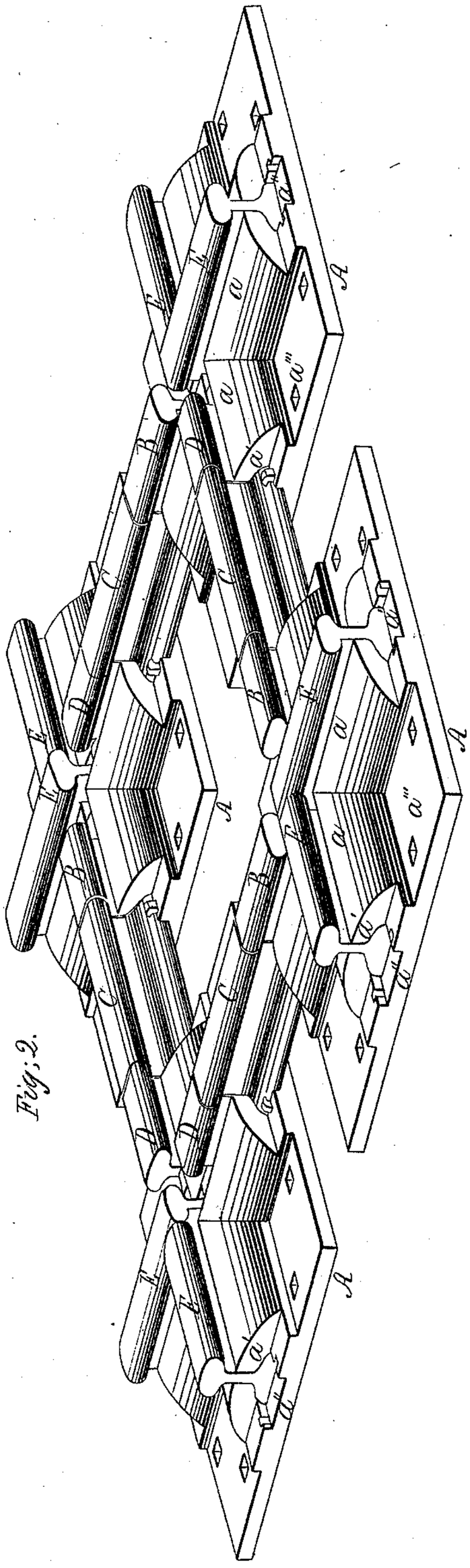

Fig. 2.

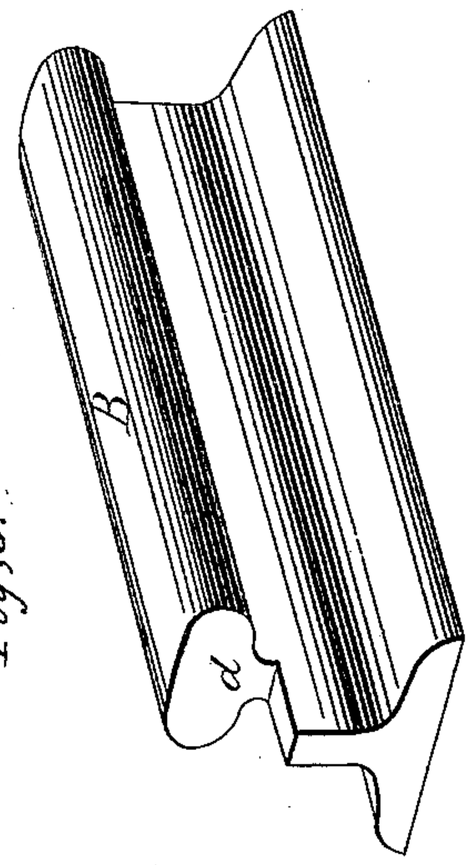

Fig. 3.

Witnesses.
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HENRY S. CHAPIN, OF DELHI, OHIO.

Letters Patent No. 78,429, *dated June* 2, 1868.

IMPROVED RAILROAD-FROG.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, HENRY S. CHAPIN, of Delhi, Hamilton county, State of Ohio, have invented certain new and useful Improvements in Railroad-Frogs; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being made to the accompanying drawings, making part of this specification.

My invention consists in such an arrangement and construction of chairs and rails at the crossing or intersection of two tracks, that the parts of the rails most subjected to wear, that is, the exposed ends, may be in short lengths, (of steel, if preferred,) and specially adapted for easy removal and repairs.

In the accompanying drawings—

Figure 1 is a perspective view of an entire crossing or intersection.

Figure 2 is a perspective view of one of the chairs.

Figure 3 is a view of a section of a rail detached.

Each corner of the crossing is provided with a chair, A, constructed with projecting swell, *a*, in the form of a cross, in which cross dove-tail slots, *a'*, to fit and clasp the base of the rails, are provided, the dove-tail part of which on the outsides of the chair is cut away, leaving only slight recesses, *a''*.

The chairs A are provided with apertures, *a'''*, for spiking down. Each side of the square formed by the intersecting rails is composed of three pieces of rail, B C D. The pieces B D, being exposed to wear and tear from the flanges of the car-wheels, can be of steel, if preferred. They are securely confined by the dove-tails *a'*. The pieces C merely rest in the recesses *a''*, and are held down by spikes *c*.

By the removal of the pieces C, the pieces B D can be withdrawn from the dove-tails, and replaced, when worn. On the outsides of the square, the pieces E are fitted into the slots *a'*, and can be removed and replaced, when worn. Short pieces of rails are fitted into the outside recesses, and connect with the full-length rails of the tracks, which latter need not be disturbed in repairing or replacing any or all parts of the frog or intersection. The rails B D are cut as shown at *d*, fig. 3, to allow of the passage of the car-wheel flanges. The flanges rest on the top of the chairs A, in passing over the intersections of the rails.

It will be observed that the pieces B D most frequently need repairs, as they are exposed to violent wear and tear from the sides of the car-wheel flanges. These pieces, by the provision of the pieces C, can be removed and replaced by one man only, even "between trains," if desirable. The pieces B C D can be removed and replaced by the withdrawal of the spikes from only one side of the piece C.

I claim herein as new and of my invention—

The chairs A, constructed substantially as set forth in the described combination with the sections or pieces of rails B C D E, arranged as described, and for the purpose specified.

In testimony of which invention, I hereunto set my hand.

HENRY S. CHAPIN.

Witnesses:

GEO. H. KNIGHT,

JAMES H. LAYMAN.