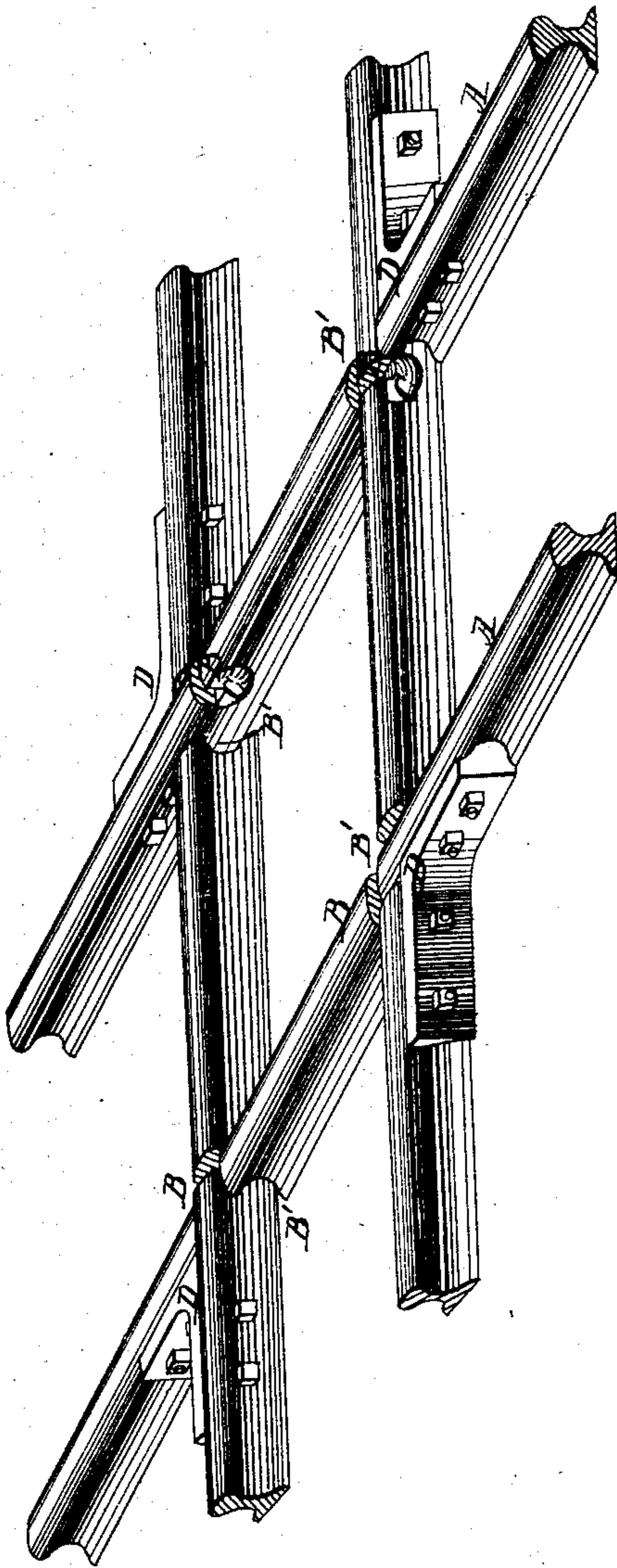


Harris & Elliot.

Railroad Frog.

N^o 69,912.

Patented Oct. 15, 1867.



Witnesses:
Samuel Knight
Frank Millward

Inventor:
Levi Harris
George Elliot
By Knight & Co
Attys

United States Patent Office.

GEORGE W. HARRIS AND GEORGE ELLIOT, OF AURORA, INDIANA.

Letters Patent No. 69,912, dated October 15, 1867.

IMPROVED RAILROAD CROSSING.

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

TO WHOM IT MAY CONCERN:

Be it known that we, GEORGE W. HARRIS and GEORGE ELLIOT, both of Aurora, Dearborn county, Indiana, have invented a new and useful improvement in Railroad Crossings; and we hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, making part of this specification.

Our invention relates to a construction of the rails at a crossing or intersection of two tracks, which, while fully as efficient and durable as the customary "frog," is cheaper in its construction, and more easily repaired or replaced, whether in whole or part.

The accompanying drawing is a perspective view of a railroad crossing embodying our improvement.

The top of each rail A designed to form part of an intersection has formed in it, by swaging or rolling while in the heated condition, a gain or depression, B, at distance from the end of the rail corresponding to flange track of crossing train. This gain B, being formed by swaging, causes a lip or bulge, C, which preserves the proper transverse area of the rail, and makes it as strong at the gain as at any other part. The portions of the rails which are impinged upon by the crossing train are of steel. Knees D are bolted to the intersecting rails on their outer sides in the manner represented. The opening B' for the opposite wheel flange is provided by allowing a suitable gap or distance to intervene between the rail end and the side of the intersecting rail in each case. The rails thus arranged may be secured to suitable cross-ties in the customary manner.

A great advantage of our arrangement consists in the removability for repair or substitution of any part of one track without disturbance of any other part or of the intersecting track at all, whereas the common frog, if deficient in any part, requires to be taken up bodily, so as to throw both tracks out of use. By our mode of construction a track-layer can lay down as much in one day as formerly required a week, and with a corresponding reduction of expense.

We claim herein as new, and of our invention—

1. A railroad crossing, formed by prolonging two rails of each track in opposite directions beyond the intersecting rails, and having gains B and gaps B', as and for the purpose set forth.
2. In combination with such gained and intersecting rails we claim the knees D, applied as herein made known.

In testimony of which invention we hereunto set our hands.

G. W. HARRIS,
GEORGE ELLIOT.

Witnesses:

GEO. H. KNIGHT,
JERU A. EMRIE.