

N. Hill,

Rail Joint.

No. 109,210.

Patented Nov. 15. 1870.

Fig. 1

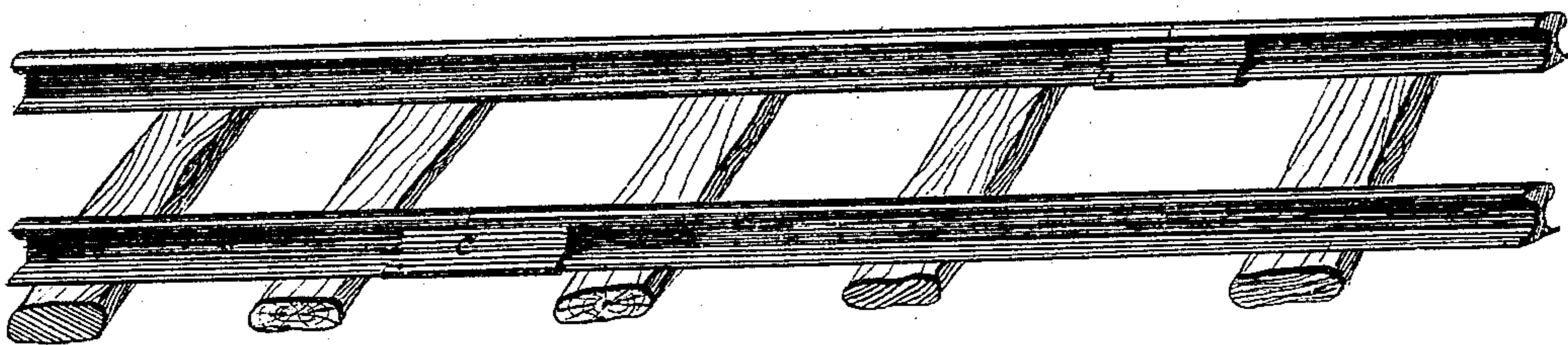


Fig. 2.

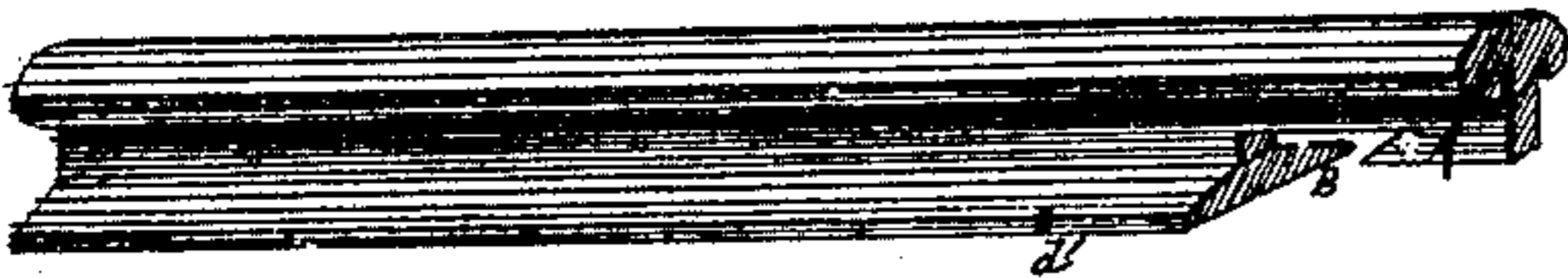


Fig. 3.

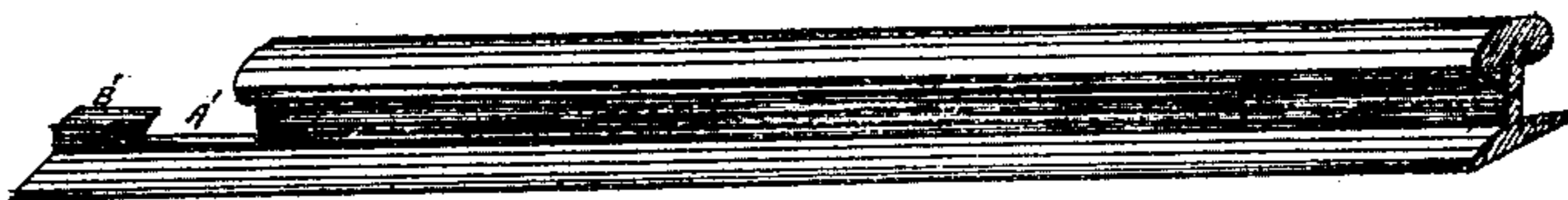


Fig. 5

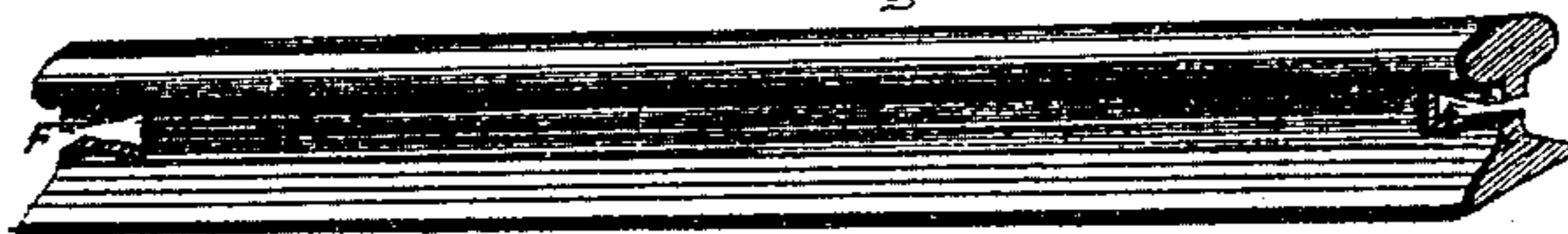


Fig. 4



Witnesses.

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NOAH HILL, OF LEAVENWORTH CITY, KANSAS.

IMPROVEMENT IN RAILWAY-RAIL JOINTS.

Specification forming part of Letters Patent No. **109,210**, dated November 15, 1870.

To all whom it may concern:

Be it known that I, NOAH HILL, of Leavenworth City, county of Leavenworth, in the State of Kansas, have invented a new and useful Improvement in Securing a Continuous Railway-Joint for Railroads; and I hereby declare that the following is a full and complete description of the construction of the same, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a view of the track laid in form as joined by joint, for which I desire Letters Patent.

Figs. 2 and 3 represent rails as prepared to be joined together, B' and A, respectively, being dovetailed projections, which are placed in the notches, A' and B forming what is called a "dovetailed joint."

Fig. 4 represents a tubular shoe made of wrought-iron of one-half inch thickness, which is made to conform to the lower portion of the rail, the upper edges of which fit into the groove, as shown in the drawings. The groove is to be from one-fourth to one-half an inch in depth. The shoe is placed on the end of the rail, and when the dovetailed joint is formed it is slipped along so as to cover the same, as shown in C C in Fig. 1.

d in Fig. 4 and d' in Fig. 2 represent the hole through the shoe, and notch in the rail

through which to pass a bolt to secure the shoe in its place when the joint is formed, the projections and notches in the ends of the rails to be of such lengths as to best serve the purpose of forming such a joint and not weaken the same, the tubular shoe to be of length sufficient to well cover the joint. The whole joint, when thus formed, makes a complete and continuous rail.

Fig. 5 represents a dovetailed key, and F F the notches to correspond in the end of the rails in which the key is inserted, forming another lock-joint, and over which the tubular shoe is again placed as before, which forms another complete joint for a continuous rail. Each joint thus formed is complete without bolts or rivets, and allowing sufficient room for the contraction and expansion of the metal, and spring sufficient to the rails if placed between the ties.

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

A rail-joint consisting of the lock-splice A A' B B', or the dovetail key-joint F, and the shoe C, the whole constructed and arranged substantially as and for the purpose set forth.

NOAH HILL.

Witnesses:

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