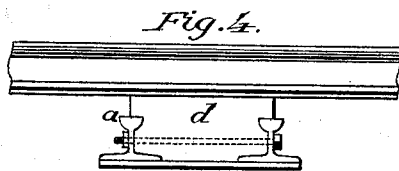
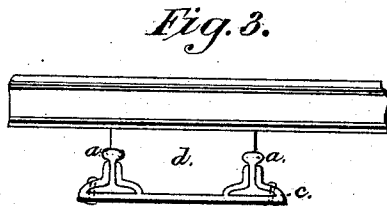
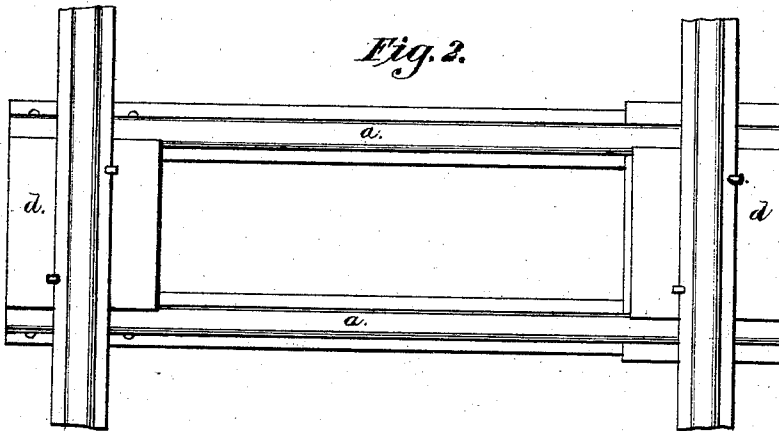
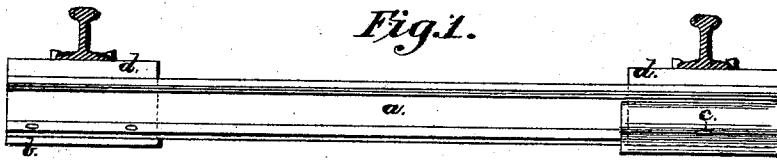


P. KENDRICK & J. STOKES.

Railway-Ties.

No. 147,563.

Patented Feb. 17, 1874.



Witnesses

Thos. B. Maple
Chas. F. Michel

Inventor's

Peter Kendrick
Joseph Stokes

UNITED STATES PATENT OFFICE.

PETER KENDRICK AND JOSEPH STOKES, OF TRENTON, NEW JERSEY.

IMPROVEMENT IN RAILWAY-TIES.

Specification forming part of Letters Patent No. **147,563**, dated February 17, 1874; application filed August 22, 1873.

To all whom it may concern:

Be it known that we, PETER KENDRICK and JOSEPH STOKES, of the city of Trenton, in the State of New Jersey, have invented an Improvement in Railroad-Sleepers, of which the following is a specification:

In places where timber is abundant wood forms the best material for sleepers, but in districts where this material is expensive, or is rapidly destroyed by insects or by atmospheric influences, iron or stone is necessarily employed as a substitute. In these cases it is necessary to retain the elasticity of the wooden sleeper in order that the permanent way and rolling-stock may not be destroyed by the hammering of the wheels.

Our improved sleeper will be understood by referring to the drawings accompanying this specification. It is formed of two old rails, *a*, laid parallel to each other, and having between

them, at their opposite ends, a block of wood, *d*, secured by a bolt passing through the rails and through the wood, as shown in the drawings. To the wood the rail is spiked, as in the ordinary wooden sleeper, and affords an elastic bearing. In some cases an iron plate, *b*, may be riveted to the flanges of the rails *a* to give greater strength to the sleeper, or a casting or chair, *c*, may be employed for the same purpose.

We claim—

A railroad-sleeper composed of a pair of old rails, with wooden blocks interposed to form an elastic bearing, substantially as described.

PETER KENDRICK.
JOSEPH STOKES.

Witnesses:

THEO. C. MAPLE,
C. B. PICKEL.