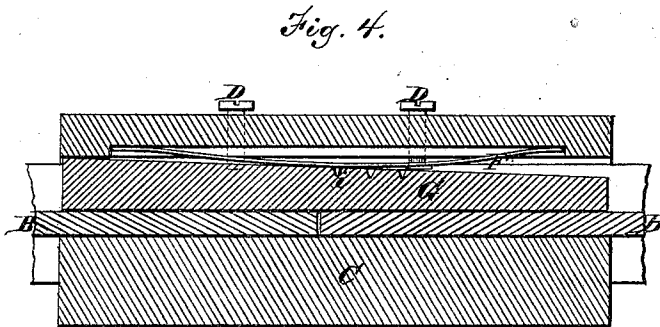
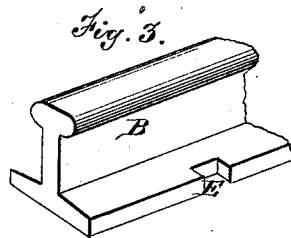
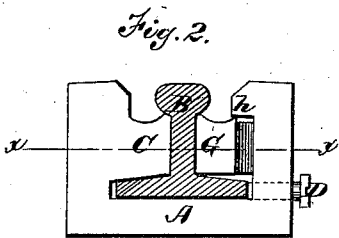
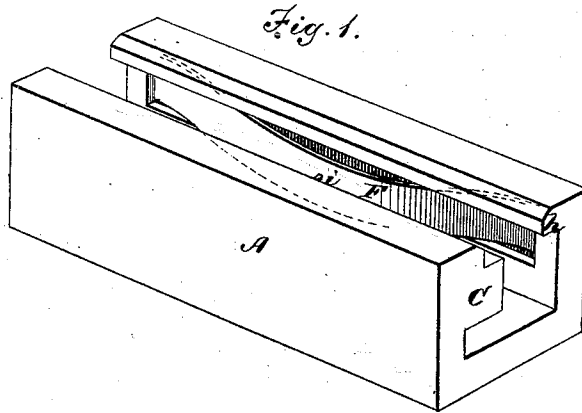


D. M. REYNOLDS.

Improvement in Joint for Railway-Rails.

No. 131,462.

Patented Sep. 17, 1872.



Witnesses.
C. F. Brown.
H. J. Ellsworth.

Inventor
David M. Reynolds
By his Attys.
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UNITED STATES PATENT OFFICE.

DAVID M. REYNOLDS, OF PORT DEPOSIT, MARYLAND.

IMPROVEMENT IN JOINTS FOR RAILWAY RAILS.

Specification forming part of Letters Patent No. 131,462, dated September 17, 1872.

To all whom it may concern:

Be it known that I, DAVID M. REYNOLDS, of Port Deposit, in the county of Cecil and State of Maryland, have invented a new and useful Improved Joint for Railroad Rails; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawing forming part of this specification, in which—

Figure 1 is a perspective view of the joint detached from the rail. Fig. 2 is a transverse section of the joint and rail. Fig. 3 is a perspective view of a rail, showing the construction of the flange; and Fig. 4 is a horizontal section of the joint and rail taken in the line *x x*, Fig. 2.

Similar letters of reference in the accompanying drawing indicate the same parts.

My invention has for its object to unite the adjoining ends of railroad rails with an adjustable joint which shall be strong and durable without forming a rigid and unyielding connection. To this end it consists in a rectangular or oblong box in which the rails are held by set-screws, a spring, and an adjustable wedge, as I will now proceed to describe.

In the accompanying drawing, A is a rectangular box or block of metal, having both ends open to admit the introduction of the rails B. The sides of the box are on a level or nearly so with the tread of the rails, but are removed from the latter somewhat to permit the passage of the car or truck wheels. C is a longitudinal rib, formed on the inner side of the box so as to fit over the flange of each rail upon one side and bear against the web and under side of the head. D D are set-screws passing through the opposite side of the box to enter recesses E formed in the flanges of the rails on that side. These screws hold the opposite flanges beneath the rib C, and the recesses E being larger than the diameter of the screws they permit the necessary longitudinal expansion and contraction of the rails. F is a semi-elliptic spring placed within the box on that side carrying the set-screws, with its ends resting within a longi-

tudinal recess, as shown; and G is a wedge of wood or metal, inserted between the convex face of the spring and the web of the rails. The wedge is prevented from vertical displacement by the overhanging lip *h* of the box, and from longitudinal displacement by one or more pins or projections, *i*, on the spring, which enter corresponding recesses in the side of such wedge.

The joint, thus constructed, can be removed from the rails or adjusted thereon by withdrawing the wedge; or, if loosened by the passage of trains, it can be easily tightened again by forcing the wedge in further, the spring yielding for this purpose so as to slip the pins *i* from one recess to another in the wedge. Under the ordinary wear or shocks to which the joint is subjected the wedge cannot be displaced, as it requires considerable force exerted laterally to compress the spring sufficiently to clear the pins *i* from the recesses.

Having thus described my invention, what I claim is—

1. The joint for railroad rails, consisting of an oblong open-ended box in which the adjoining ends of two rails are held by set-screws, a spring, and an adjustable wedge, substantially as described, for the purposes specified.

2. In combination with the rails having recessed flanges, I claim the oblong box A C, the set-screws D, and the adjustable spring-wedge G, substantially as described, for the purposes specified.

3. In combination with the oblong box and the rails B, I claim the spring F and the adjustable wedge G, substantially as described, for the purposes specified.

4. A joint or box in which the adjoining ends of two railroad rails are clamped between a fixed rib on one side and an adjustable spring-wedge, and one or more set-screws on the opposite side, substantially as described, for the purposes specified.

DAVID M. REYNOLDS.

Witnesses:

NATHAN K. ELLSWORTH,
C. F. BROWN.