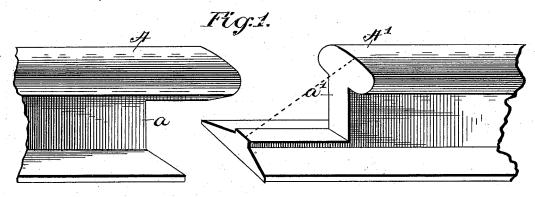
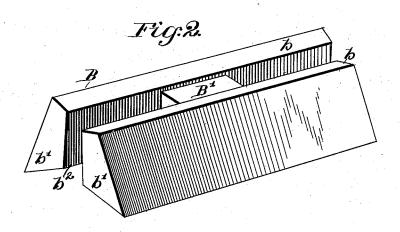
N. T. FRAME.

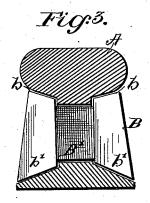
RAILROAD RAIL JOINT.

No. 384,249.

Patented June 12, 1888.







Witnesses. Witnesses. Witnesses. Witnesses. Nathan J. Frame By Daniel Breed. Attorney.

UNITED STATES PATENT OFFICE.

NATHAN T. FRAME, OF JAMESTOWN, OHIO.

RAILROAD-RAIL JOINT.

SPECIFICATION forming part of Letters Patent No. 384,249, dated June 12, 1888.

Application filed September 24, 1887. Serial No. 250,543. (No model.)

To all whom it may concern:

Be it known that I, NATHAN T. FRAME, a citizen of the United States, residing at Jamestown, in the county of Greene and State of Ohio, have invented certain new and useful Improvements in Railroad Rail Joints; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

My invention consists of a novel construc-15 tion of rail-joint for railways, which I call the

"diagonal" joint.

In the accompanying drawings, Figure 1 is a perspective view of the ends of two rails for a railway. Fig. 2 is a detached view of my 20 solid-metal joint-lock. Fig. 3 is a cross section of the rail at one end of the solid lock, which is represented in position with the rail.

The object of my rail-joint lock is to make a substitute for the ordinary fish-plate.

In the construction of my improvement, instead of cutting the rails directly and completely across vertically, I cut the crown of

both rails at one point and the bases at a considerable distance from the vertical line of the cut in the crown, as shown in Fig. 1. Then 30 the coupling piece or solid joint lock is made to fit this form or cut of the rails, as shown in Fig. 2. By this construction I make a lapjoint in the rails themselves, and the strain is diagonal, as indicated by the dotted line in 35 Fig. 1.

The cheeks b' of the solid lock or couplingpiece are really fish-plates held in place by the neck B' of the casting.

Having described my invention, what I claim 40

The solid coupling-piece, Fig. 2, in combination with the two rails having their crowns and bases meeting not on the same vertical line, so as to give a diagonal strain upon the 45 continuous or combined rails, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

NATHAN T. FRAME.

Witnesses:

DANIEL BREED, M. T. Ross.