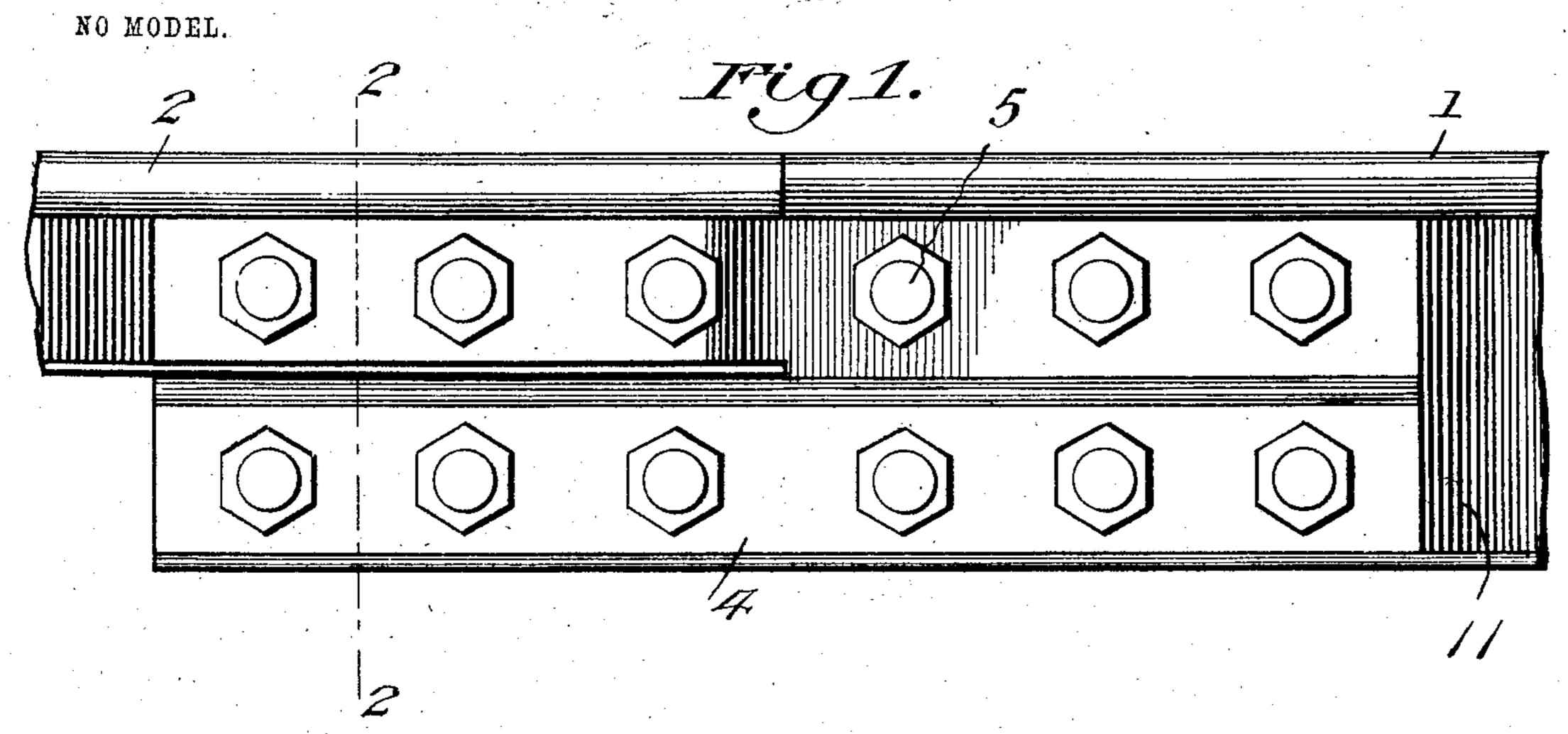
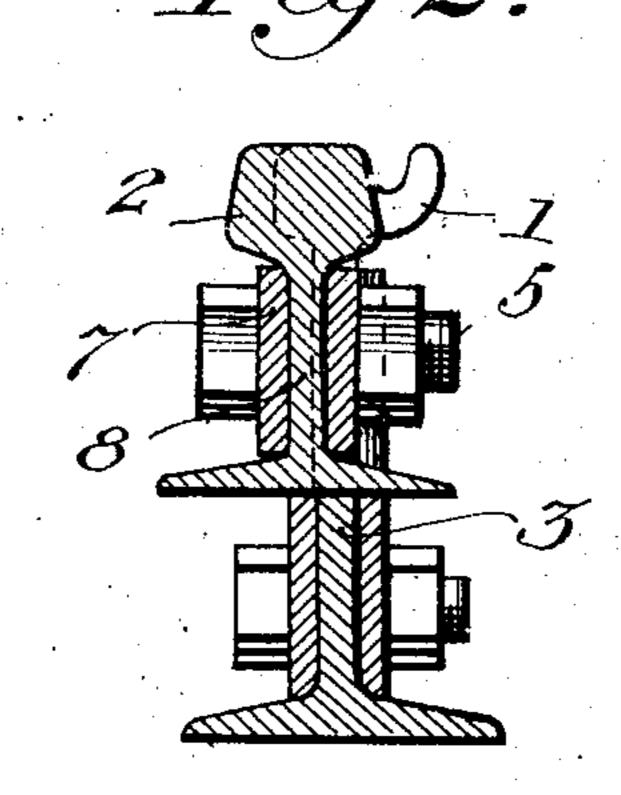
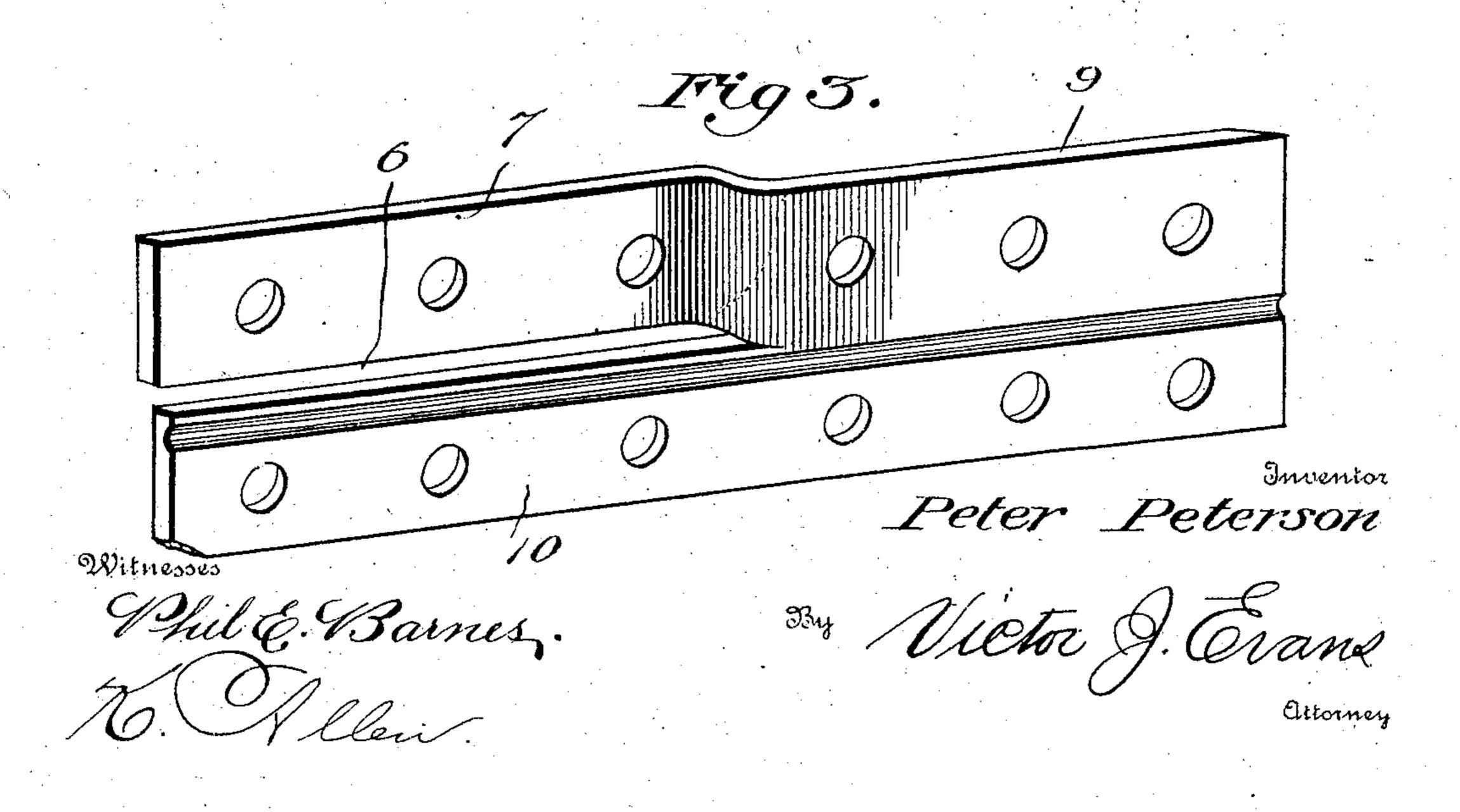
P. PETERSON. RAIL JOINT. APPLICATION FILED SEPT. 3, 1904.







United States Patent Office.

PETER PETERSON, OF LEXINGTON, MASSACHUSETTS.

RAIL-JOINT.

SPECIFICATION forming part of Letters Patent No. 778,069, dated December 20, 1904.

Application filed September 3, 1904. Serial No. 223,235.

To all whom it may concern:

Be it known that I, Peter Peterson, a citizen of the United States, residing at Lexington, in the county of Middlesex and State of 5 Massachusetts, have invented new and useful Improvements in Rail-Joints, of which the

following is a specification.

This invention relates to rail-joints, and has for its object to produce a comparatively sim-10 ple and inexpensive device of this character, designed especially for connecting the meeting ends of T and girder rails, whereby sagging of the T-rail, with a consequent spreading and weakening of the joint, is wholly ob-15 viated.

To these ends the invention comprises novel features of construction and combination of parts more fully hereinafter described.

In the accompanying drawings, Figure 1 is 20 an elevation showing the meeting ends of a T and girder rail connected in accordance with the invention. Fig. 2 is a section taken on the line 2 2, Fig. 1. Fig. 3 is a perspective view of one of the fish-plates.

Referring to the drawings, 1 designates a girder-rail, and 2 a T-rail, assembled in endwise relation, forming a rail-joint, the girder-rail 1 being provided at its terminal with an extended portion 3, which lies beneath the base of 3° and underlaps the adjacent end of the T-rail to an appropriate extent, while upon opposite sides of the rails at the point of meeting there are disposed fish-plates 4, attached to the ends of the rails and to each other by through-35 bolts.

In accordance with the present invention the fish-plates are each formed from a single metal blank slotted at its transverse center to thus produce a longitudinal opening or seat 40 6 of a length equaling about one-half the entire. length of the fish-plate, and the upper portion or section 7 thus formed is offset laterally, as illustrated in Fig. 3, and adapted when the parts are assembled to lie flush upon the side 45 face of the web 8 of the T-rail 2, while the remaining portions 9 and 10 of the fish-plate

will lie upon the side faces of the girder-rail web 11 and the extended portion 3 of the latter, respectively.

It will be observed on reference to Fig. 2 50 that when the rail-sections are brought into endwise assemblage and in order that the treads of the rails may properly register the webs 8 and 11 will non-register. Hence the necessity for offsetting the sections 7 laterally. 55 It will further be observed that the portions 10 of the fish-plates will, as before stated, lie upon opposite sides of the extended portion 3 and act in conjunction with the latter as a firm base or foundation for the overlying portion 60 of the T-rail.

It may be mentioned that it frequently becomes necessary, particularly in laying electric-railway rails, to assemble sections of girder and T rails in endwise continuance of 65 each other and that heretofore it has been practically impossible to so connect or couple the meeting ends of such rails as to produce a firm strong joint wherein the end of the Trail would be prevented from sagging.

From the foregoing it is apparent that I have produced a strong and durable device whereby the rails may be securely coupled and the objectionable features heretofore attendant upon such joints are overcome, it be- 75 ing understood that in attaining these ends minor changes in the details herein set forth may be resorted to without departing from the spirit of the invention.

Having thus described the invention, what 80 is claimed as new is—

1. A fish-plate incised longitudinally to produce upper and lower sections, one of said sections being offset laterally.

2. A fish - plate incised longitudinally 85 throughout substantially one-half its length to produce upper and lower sections, one of said sections being offset laterally relative to the other.

3. A fish - plate incised longitudinally 90 throughout a portion of its length to produce upper and lower sections, the normally upper

section being offset laterally relative to the lower section.

4. In a rail-joint, a pair of rails arranged in endwise relation, one of said rails having an extended portion lying beneath the base of and underlapping the other rail, and a fish-plate secured to said rails and incised longitudinally to produce upper and lower sections lying severally upon the side faces of the ex-

tended portion and the web of the overlying rerail.

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

PETER PETERSON.

Witnesses:
DAVID O. HALLSTROM,
Z. B. CAMPBELL.