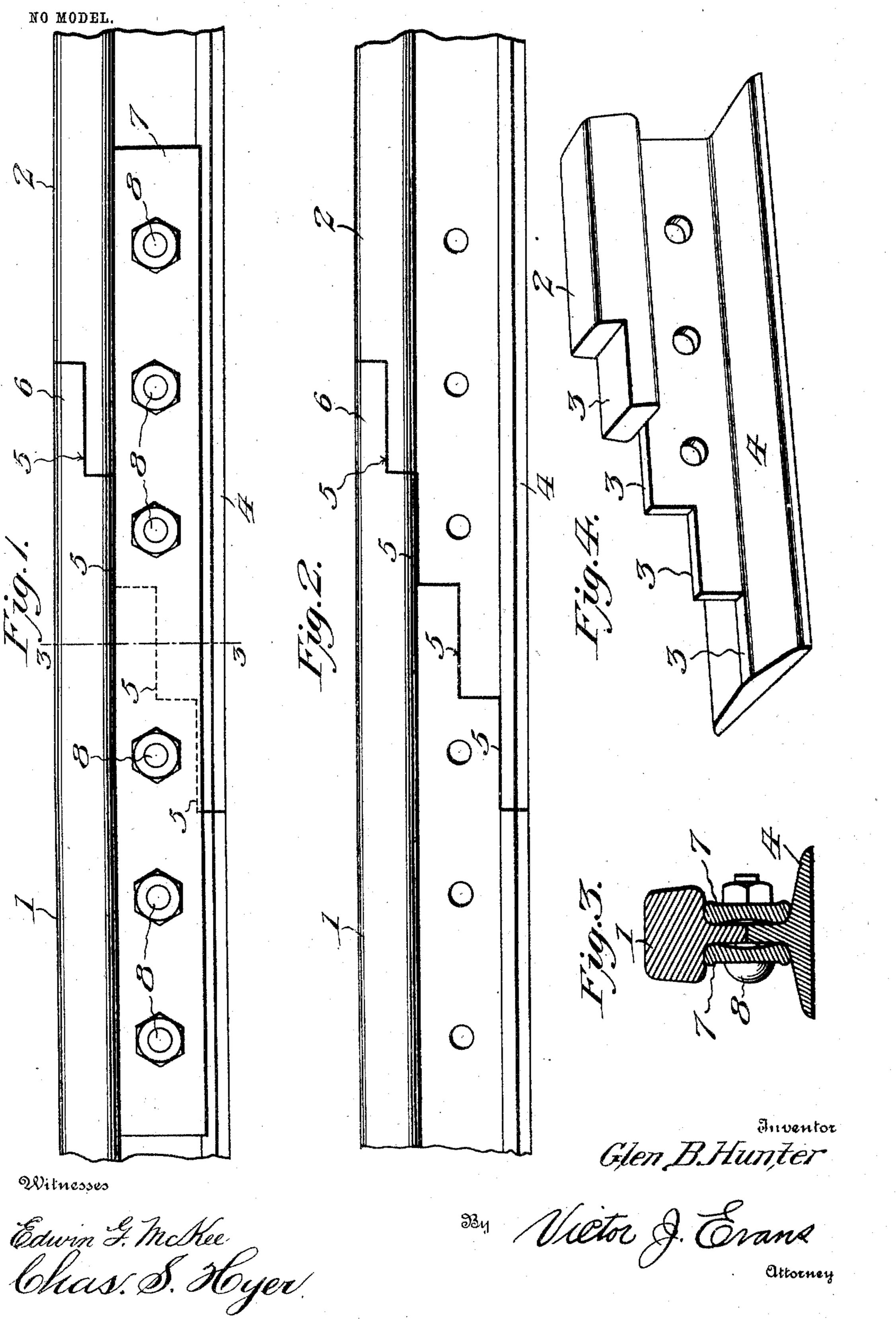
## G. B. HUNTER. RAIL JOINT.

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## United States Patent Office.

GLEN B. HUNTER, OF DES MOINES, IOWA.

## RAIL-JOINT.

SPECIFICATION forming part of Letters Patent No. 777,634, dated December 13, 1904.

Application filed March 10, 1904. Serial No. 197,566. (No model.)

To all whom it may concern:

Be it known that I, GLEN B. HUNTER, a citizen of the United States, residing at Des Moines, in the county of Polk and State of 5 Iowa, have invented new and useful Improvements in Rail-Joints, of which the following is a specification.

This invention relates to rail-joints; and the primary object of the same is to so construct to the abutting ends of rail-sections that depression thereof will be obstructed irrespective of the loosening of the fish-plates or other connecting means and also to facilitate the assemblage of the ends of the sections.

The invention consists in the construction and arrangement of the several parts, which will be more fully hereinafter described and claimed.

In the drawings, Figure 1 is a side elevation 20 of portions of rail-sections embodying the features of the invention and showing fish-plates applied thereto. Fig. 2 is a side elevation of the joined sections with the plates removed. Fig. 3 is a transverse vertical section on the 25 line 3 3, Fig. 1. Fig. 4 is a detail perspective view of the end of one of the rail-sections.

Similar numerals of reference are employed to indicate corresponding parts in the several 30 views.

The numerals 1 and 2 designate rail-sections, which are of the usual construction except at the abutting ends. The end of the section 2 has the head, web, and flange thereof 35 formed with a plurality of longitudinally-extending steps 3, which are formed by cutting away upper portions of the web and head and entirely clearing the flange 4 adjacent to its one end. The section 1 has a series of undercut 40 steps 5, constructed by removing a part of the base-flange, portions of the web, and the head, the latter being provided with a projecting tongue 6 of a length equal to and adapted to snugly fit in the step 3 of the head 45 of the rail-section 2. The undercut steps 5 of the rail-section 1 are pushed longitudinally over the steps 3 of the rail-section 2, the steps in reverse positions of the two rail-sections being of similar dimensions to provide an ex-

act fit, and when the said sections are assem- 50 bled a part of the web of the section 1 extends over the base-flange 4 of the section 2. After the rail-sections are assembled fish-plates 7 are applied thereto and secured by locking bolts and nuts 8 in the usual manner. The 55 fish-plates 7 take up the distance between the base-flanges of the rail-sections and the under portions of the heads and obstruct any tendency to lateral movement of the connected sections.

The improved joint can be readily produced by cutting rail-sections of ordinary construction to form the steps and without introducing in the rails any cumbersome projecting structural features. In other words, the usual 65 rail-stock commonly employed in railroad structures can be readily modified to produce the joint and ordinary fish-plates employed in completing the said joint.

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It will be understood that the stepped-joint 70 construction will prevent rail-sections from depressing, and material advantages will thus result from the use of the improvement.

Having thus fully described the invention, what is claimed as new is-

1. A rail-joint, comprising a rail-section with a part of its base-flange cleared from the end, and cut away at the upper parts of the web and head thereof, thus to form longitunally-extending steps, another section under- 80 cut reversely to snugly fit said steps, and means for securing the sections in immovable relation.

2. A rail-joint, comprising a rail-section with a part of its base-flange cleared from the 85 end, and cut away at the upper parts of the web and head thereof, thus to form longitunally-extending steps, another section undercut reversely to snugly fit said steps, and fishplates and locking devices for securing the 9° sections in immovable relation.

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

Witnesses:

E. A. LINGENFELDT, GEO. F. W. LA PASH.