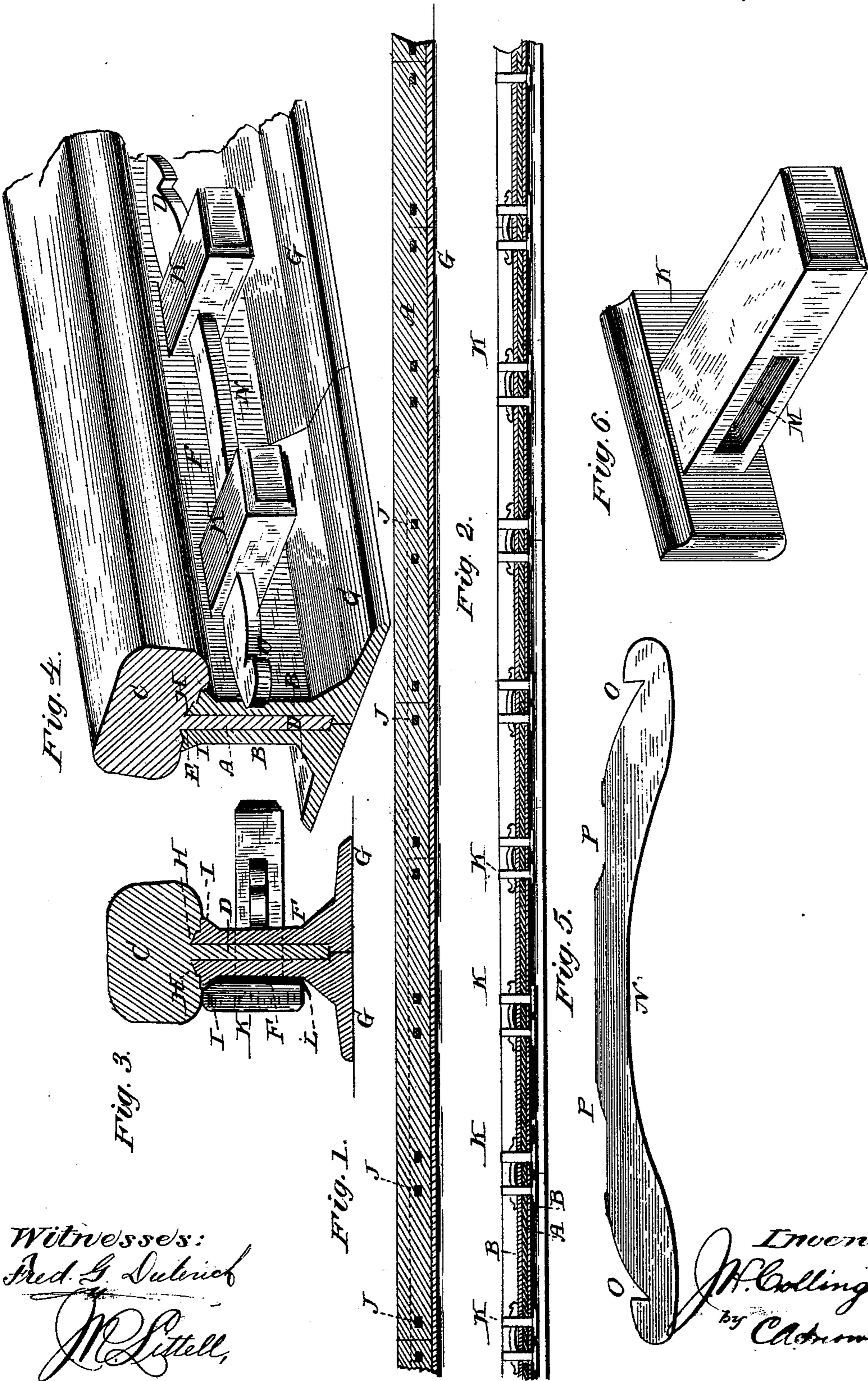


J. H. COLLINGWOOD.  
Railroad Rail.

No. 229,522.

Patented July 6, 1880.



Witnesses:  
Fred. G. Dubrich  
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Attys

# UNITED STATES PATENT OFFICE.

JAMES H. COLLINGWOOD, OF POUGHKEEPSIE, NEW YORK.

## RAILROAD-RAIL.

SPECIFICATION forming part of Letters Patent No. 229,522, dated July 6, 1880.

Application filed October 15, 1879.

*To all whom it may concern:*

Be it known that I, JAMES H. COLLINGWOOD, of Poughkeepsie, in the county of Dutchess and State of New York, have invented certain new and useful Improvements in Railroad-Rails; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

Figure 1 is a longitudinal sectional view of my improved railroad-rail. Fig. 2 is a horizontal sectional view. Fig. 3 is an end view. Fig. 4 is a detail view of the fastening. Fig. 5 is a plan view of the fastening-spring; and Fig. 6 is a detail view of one of the bolts.

Corresponding parts in the several figures are denoted by like letters of reference.

This invention relates to compound rails for railroads, or that class of rails which consist of several longitudinal parts or sections, those of which most exposed to wear may be readily removed and replaced with others; and it consists in the method of fastening or securing the parts together, which will be hereinafter more fully described, and particularly pointed out in the claim.

My improved rail is made up of three sections, A B B, the central one of which, A, consists of the head C, provided with a downward-projecting flange, D, which forms the central portion of the web E. The outer sides of said web are formed by flanges F F, projecting upward from the bottom flanges, G G. The upper ends of the flanges F F are beveled, so as to fit in angular recesses H H, formed in the under side of the rail-head adjoining the central flange. The rail-head is furthermore supported upon shoulders or ledges I I, formed at the upper ends of the flanges F F, as shown. The lower end of the flange D is supported on top of the bottom flanges, between the flanges F F, thereby relieving the strain upon the latter.

The several parts or sections are arranged in relation to each other in such a manner as to break joints, the obvious object of this being

to increase the strength and stability of the rail. At suitable intervals the rails are provided with square or rectangular openings J J for the bolts K K, the shanks of which are fitted in said openings, while the heads are rectangular, their upper edges being fitted under the head of the rail. Packing L may be placed between the bolt-head and the rail. The shanks of the bolts are provided with lateral openings M, to admit the fastening-spring N, which is bow-shaped, as shown, and provided at the ends with notches O, affording a suitable gripe for a crow-bar or other tool when the spring is to be removed. To prevent the spring from being accidentally displaced I provide it upon the front side with slight recesses or depressions P, forming seats for the bolt-shanks.

From the foregoing description, taken in connection with the drawings hereto annexed, the operation and advantages of my invention will be readily understood. The construction is simple, and the original cost need not exceed that of ordinary steel rails. The facility with which the parts of my improved rail most exposed to wear may be removed and replaced or readjusted renders it, in practice, very economical.

I am aware of the patent to Holman, May 13, 1856, No. 14,870, showing a three-part rail, in which the T or tread portion is fitted between and upon the upper edges of the side and base portions, and I claim nothing therein shown.

Having thus described my invention, I claim, and desire to secure by Letters Patent of the United States—

The combination, with a compound rail, constructed substantially as herein described, of the bolts K K, having lateral openings M M, and the bow-shaped spring N, as set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

JAMES H. COLLINGWOOD.

Witnesses:

EGBERT B. SWEET,  
C. A. BROOKS.