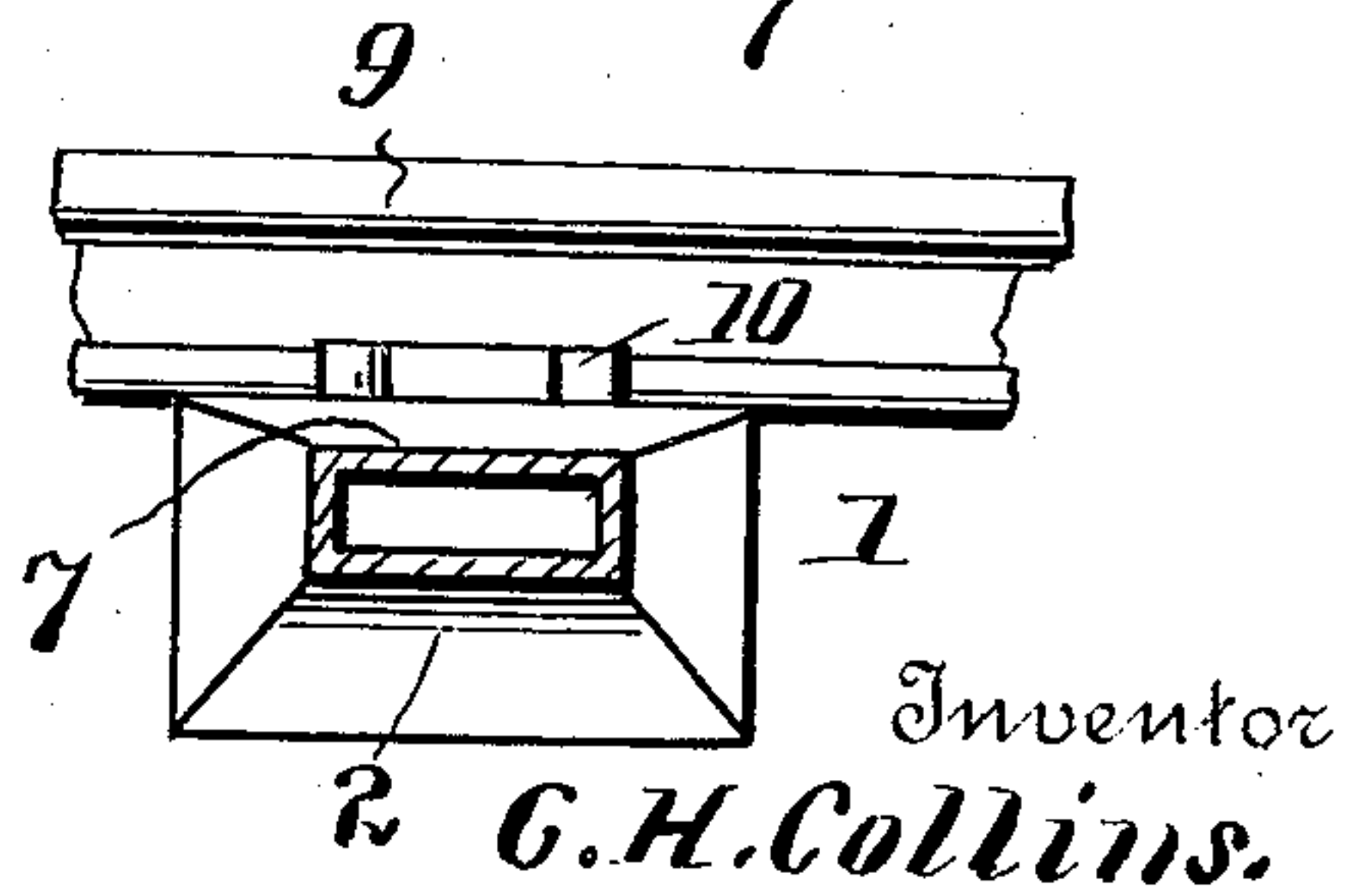
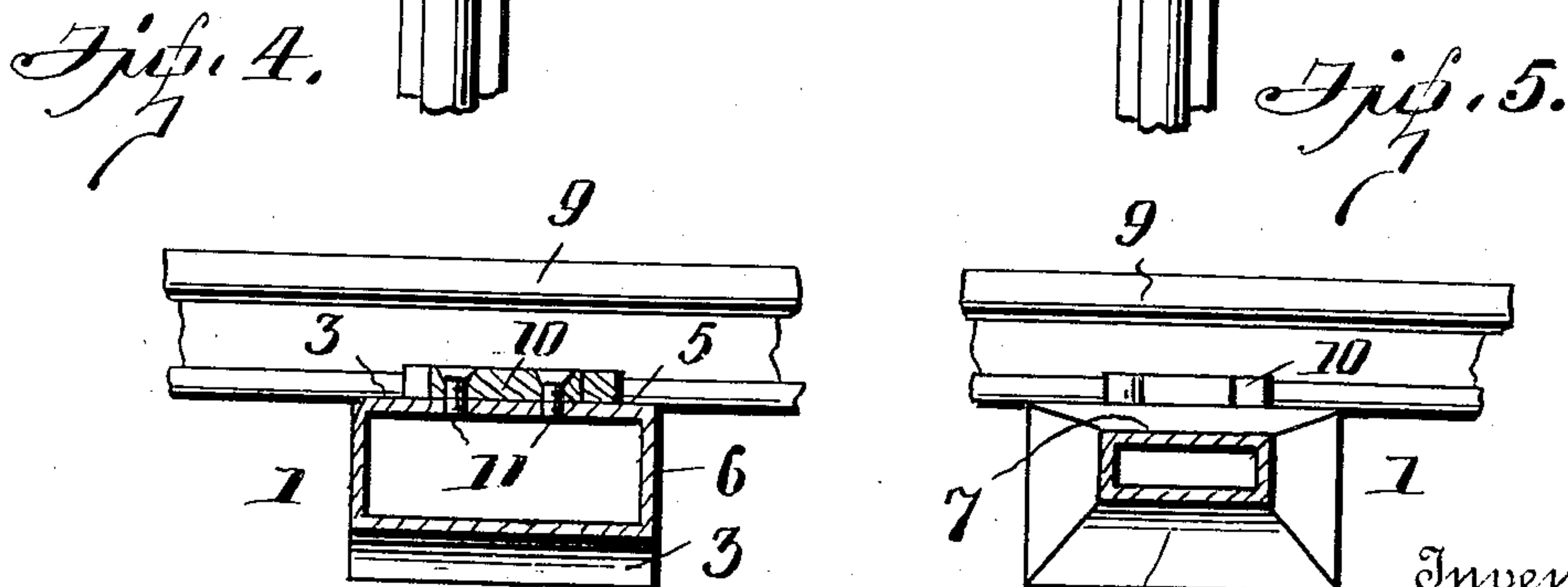
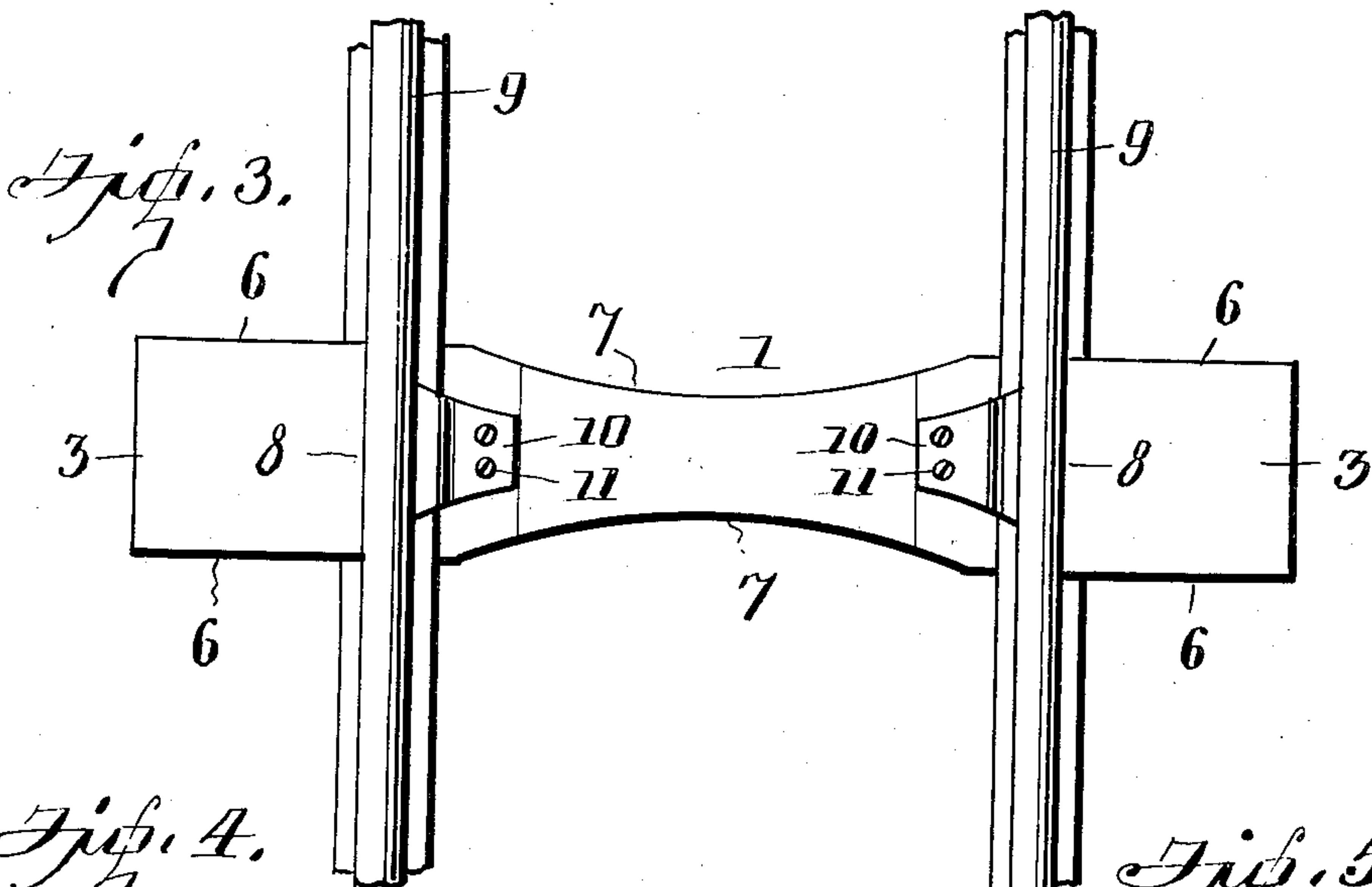
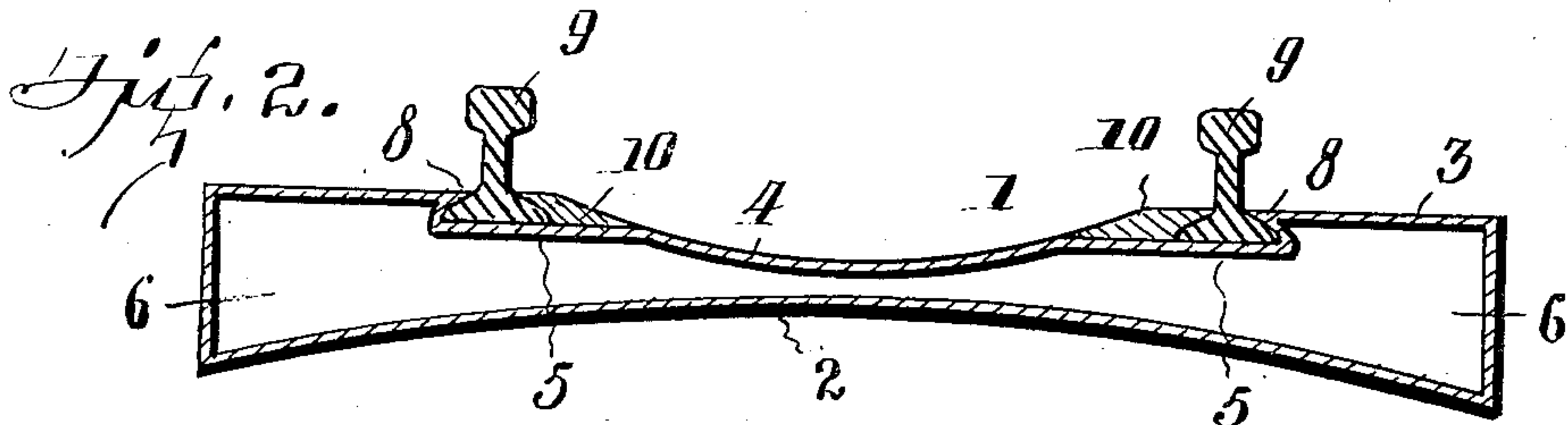
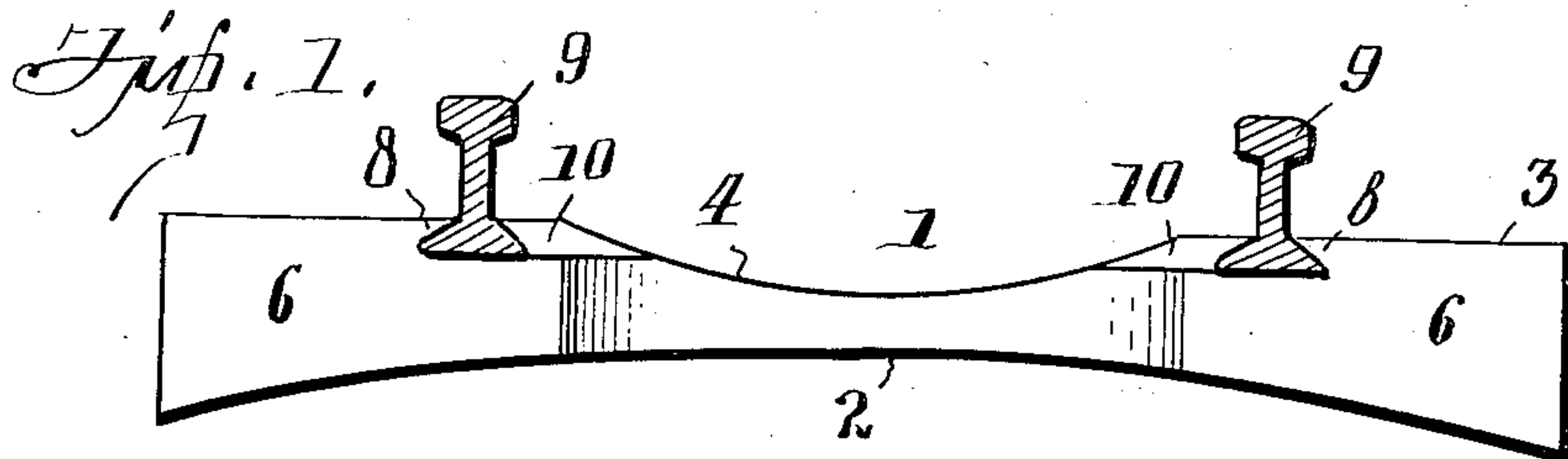


No. 841,628.

PATENTED JAN. 15, 1907.

C. H. COLLINS.  
RAILROAD TIE.

APPLICATION FILED APR. 23, 1906.



Witnesses  
Jas. A. Koehl  
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# UNITED STATES PATENT OFFICE.

CARL H. COLLINS, OF SACRED HEART, MINNESOTA.

## RAILROAD-TIE.

No. 841,628.

Specification of Letters Patent.

Patented Jan. 15, 1907.

Application filed April 23, 1906. Serial No. 313,332.

*To all whom it may concern:*

Be it known that I, CARL H. COLLINS, a citizen of the United States, residing at Sacred Heart, in the county of Renville and State of Minnesota, have invented certain new and useful Improvements in Railroad-Ties; 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.

My invention relates to improvements in metallic railway-ties; and it consists in the novel construction hereinafter described and claimed.

The object of the invention is to provide a cross-tie of this character of simple, durable, and comparatively inexpensive construction, which will not be liable to slip or shift either longitudinally or transversely.

The above and other objects are accomplished by the construction illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of my improved metallic tie, showing the track-rails secured thereto. Fig. 2 is a longitudinal sectional view. Fig. 3 is a top plan view of the same, and Figs. 4 and 5 are transverse sectional views.

My improved railway-tie is constructed of metal, preferably heavy galvanized sheet-steel, and it is formed by stamping and bending the same to provide a body 1, having a concave or longitudinally-curved bottom 2, a top having flat outer portions 3, and a concave central or intermediate portion 4, which terminates in flat track-rail seats 5, and sides having flat parallel outer portions 6 and concave intermediate portions 7. The formation of the rail-seats 5 provides upon the top of the tie transversely-extending ribs or shoulders 8 to receive the outer base-flanges of the track-rails 9, which latter are retained upon the seats 5 by plates or cleats 10, engaged with the inner base-flanges of the

track-rails and secured upon the inner portions of the seats 5 by two screws 11 or similar fastenings. By constructing the tie in this manner, so that its sides have the lateral curvatures 7 and its bottom and top the vertical curvatures 2 4, it will be seen that there will be little or no danger of its slipping or shifting either longitudinally or transversely when once it is properly set in position upon its bed or foundation. It is of simple and strong construction and also very durable.

From the foregoing description, taken in connection with the accompanying drawings, the construction, operation, and advantages of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of the invention as defined by the appended claim.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

The herein-described hollow tie having the parallel-sided end portions, flat on their upper sides, provided at their inner portions with depressed rail-seats having shoulders to receive the outer base-flanges of the rails and detachable cleats on said seats to bear against the inner base-flanges of the rails, said tie having its lower side incurved from end to end and having its sides and top incurved between the said seats, substantially as specified.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

CARL H. COLLINS.

Witnesses:

BIRGE S. BUTT,  
PEDER VAGEE.