

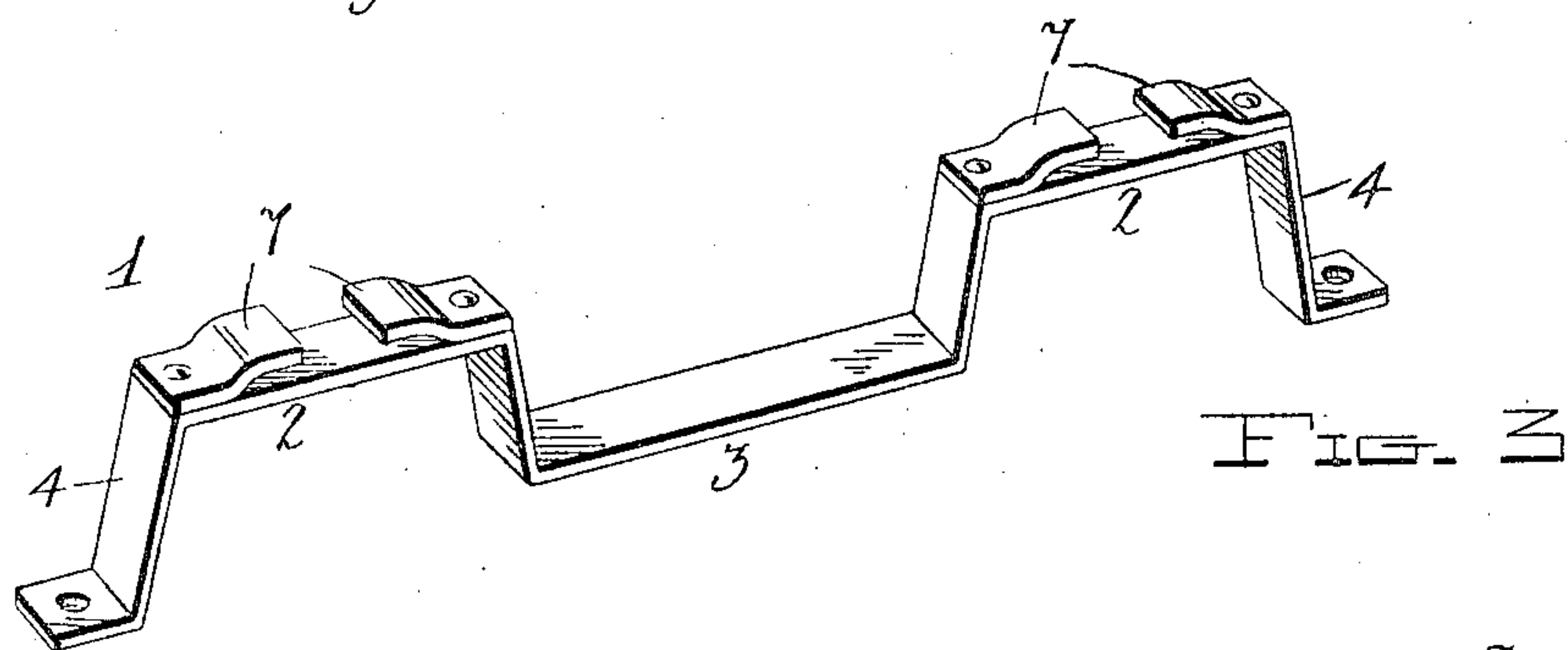
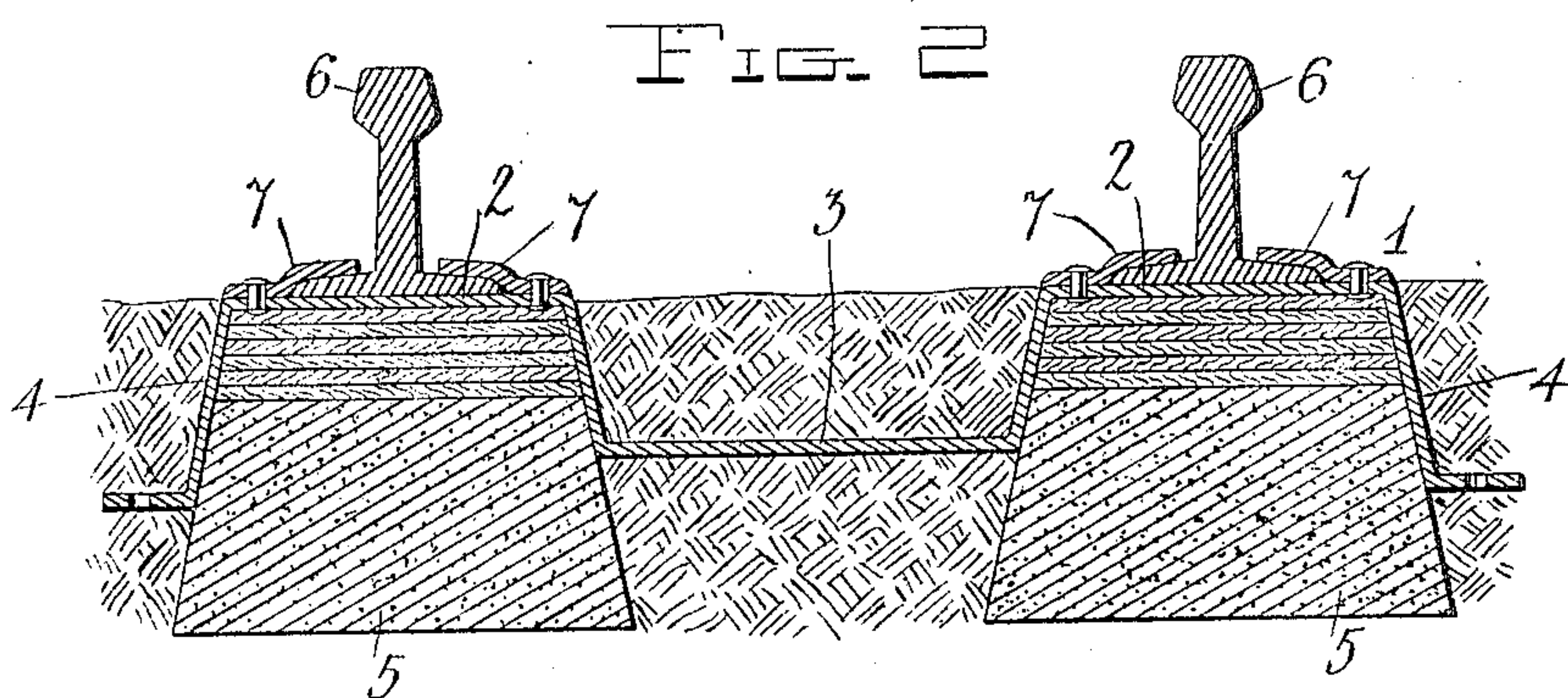
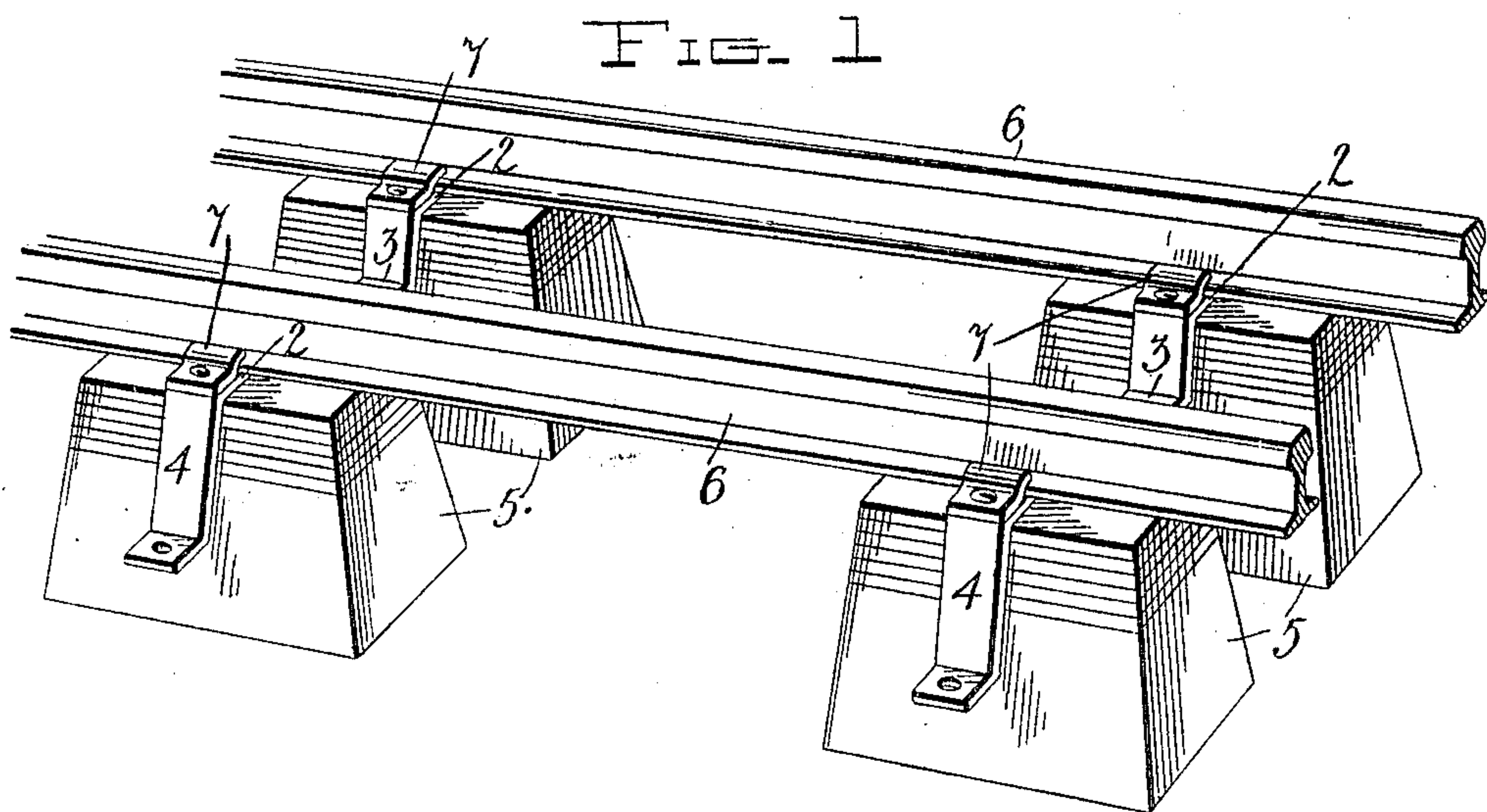
No. 807,723.

PATENTED DEC. 19, 1905.

W. M. COLBY.  
RAILWAY TIE.

APPLICATION FILED SEPT. 18, 1905.

2 SHEETS--SHEET 1



Witnesses  
*E. M. Smith*  
*L. O. Helton*

Inventor  
*William M. Colby*  
by *A. B. Wilson*  
Attorney

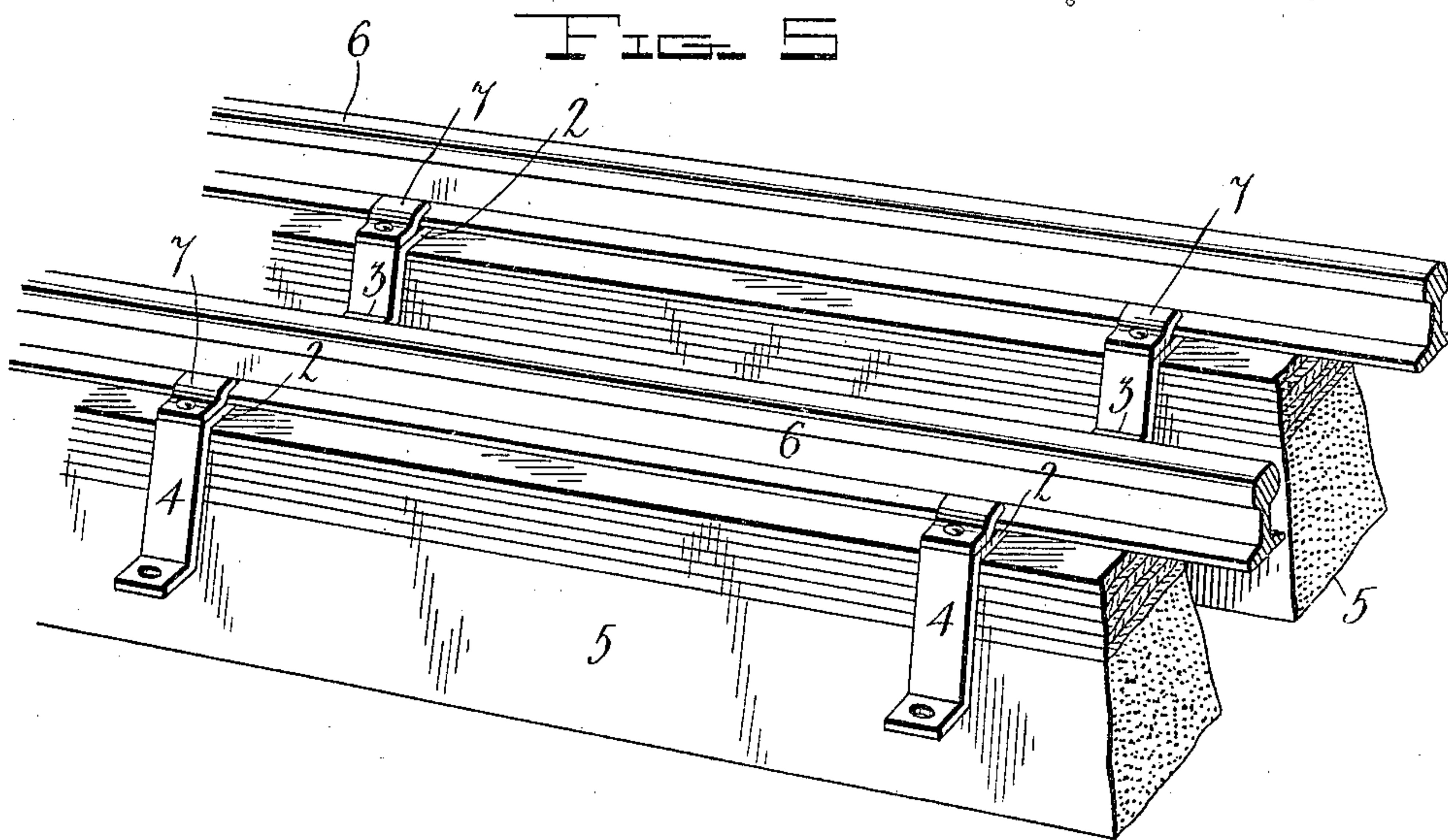
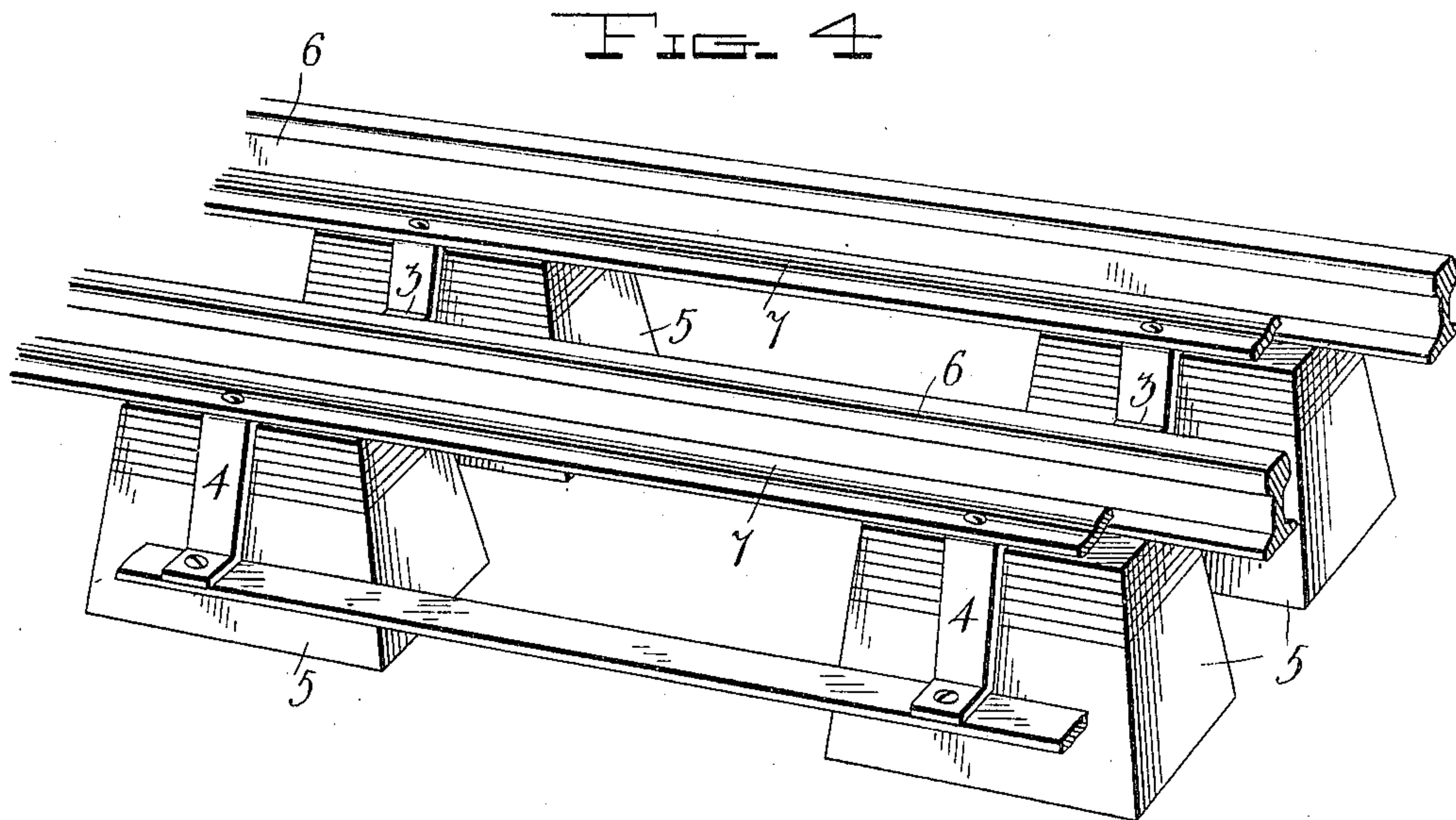
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2 SHEETS—SHEET 2.



Witnesses  
*J. H. Smith*  
*L. O. Kelton*

Inventor  
*William M. Colby*  
by *A. B. Wilson*  
Attorney



# UNITED STATES PATENT OFFICE.

WILLIAM M. COLBY, OF PARMA, MICHIGAN, ASSIGNOR OF ONE-HALF TO  
JOSIAH T. HAMMOND, OF JACKSON, MICHIGAN.

## RAILWAY-TIE.

No. 807,723.

Specification of Letters Patent.

Patented Dec. 19, 1905.

Application filed September 18, 1905. Serial No. 278,994.

*To all whom it may concern:*

Be it known that I, WILLIAM M. COLBY, a citizen of the United States, residing at Parma, in the county of Jackson and State of Michigan, have invented certain new and useful Improvements in Railway-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 ap-  
10 pertains to make and use the same.

This invention relates to improvements in railway-ties.

The object of the invention is to provide a railway-tie which will be strong, durable, and  
15 inexpensive in construction, easily adjusted or set in place, and which will securely hold the rails in place.

A further object is to provide means whereby the ties and rails will be provided with a  
20 cushioned support, thus decreasing the noise and sound of the trains passing over the rails and neutralizing the jar and vibration caused by heavy trains passing over the rails.

With the above and other objects in view the invention consists of certain novel features of construction, combination, and arrangement of parts, as will be hereinafter described and claimed.

In the accompanying drawings, Figure 1 is a perspective view of a short section of a pair of rails, showing the application of the invention thereto. Fig. 2 is a transverse vertical sectional view of the same. Fig. 3 is a detail perspective view of the tie removed from  
35 the rails. Fig. 4 is a view similar to Fig. 1, showing a modified arrangement of the invention; and Fig. 5 is a similar view showing still another modification of the device.

Referring more particularly to the drawings, 1 denotes the tie, which is preferably formed of a single metallic bar bent to form a sleeper or foundation engaging portion 2, a central depressed portion 3, and downwardly and laterally projecting end portions 4. Said  
45 centrally-depressed and downwardly-projecting end portions are adapted to be embedded in the ground, while the sleeper-engaging portions 2 are adapted to engage sleepers or foundation blocks 5 and to receive the rails 6.

50 The rails 6 may be secured to the portions 2 of the tie in any suitable manner, but are preferably fastened thereto by means of clamping-plates 7, which are bolted or other-

wise secured to the portions 2 of the tie and are adapted to engage the base-flanges on  
55 each side of the rail, as shown. The clamping-plates 7 may be formed of the same width as the tie, as shown in the first figures of the drawings, or the same may be formed in a continuous strip and extend from tie to tie, as  
60 shown in Fig. 4.

The ties 1 are adapted to rest upon foundations or sleepers 5, which preferably have their base portions formed of cement or artificial stone and their upper portions formed  
65 of felt or other elastic material, which is treated and prepared so as to be impervious to water and of sufficient durability to stand the necessary wear and strain. The foundations or sleepers are preferably constructed  
70 in the form of pyramidal-shaped blocks, as shown in the first figures of the drawings. Said sleepers or foundations, however, may be formed in one continuous piece, as shown in Fig. 5 of the drawings.

75 A railway-tie and support constructed as herein shown and described will be found to be efficient and reliable and will securely hold the rails in place.

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

Various changes in the form, proportion,  
85 and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

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

1. A railway-tie constructed of a metallic bar bent to form sleeper or foundation engaging portions, a central depressed portion,  
95 downwardly-projecting end portions, clamping-plates secured to said ties to hold the rails in place thereon, longitudinally-disposed brace-bars connecting the lower outer ends of said ties, and cushioned sleeper or foundation  
100 blocks adapted to receive and support said ties, substantially as described.

2. A railway-tie constructed of a metallic bar bent to form sleeper or foundation engaging portions, a central depressed portion,  
105 downwardly-projecting end portions, clamp-

ing-plates secured to said ties to hold the rails  
in place thereon, longitudinally - disposed  
brace-bars connecting the lower outer ends  
of said ties, pyramidal - shaped sleeper or  
5 foundation blocks to support said ties and  
elastic cushions arranged on said blocks to re-  
ceive the ties, substantially as described.

In testimony whereof I have hereunto set

my hand in presence of two subscribing wit-  
nesses.

WILLIAM M. <sup>his</sup> × COLBY.  
mark

Witnesses:

BYRON E. LINOBERY,  
FLORENCE LATIMER.