

G. M. ERVIN.
RAILWAY TRACK STRUCTURE.
APPLICATION FILED JUNE 6, 1905.

2 SHEETS—SHEET 1.

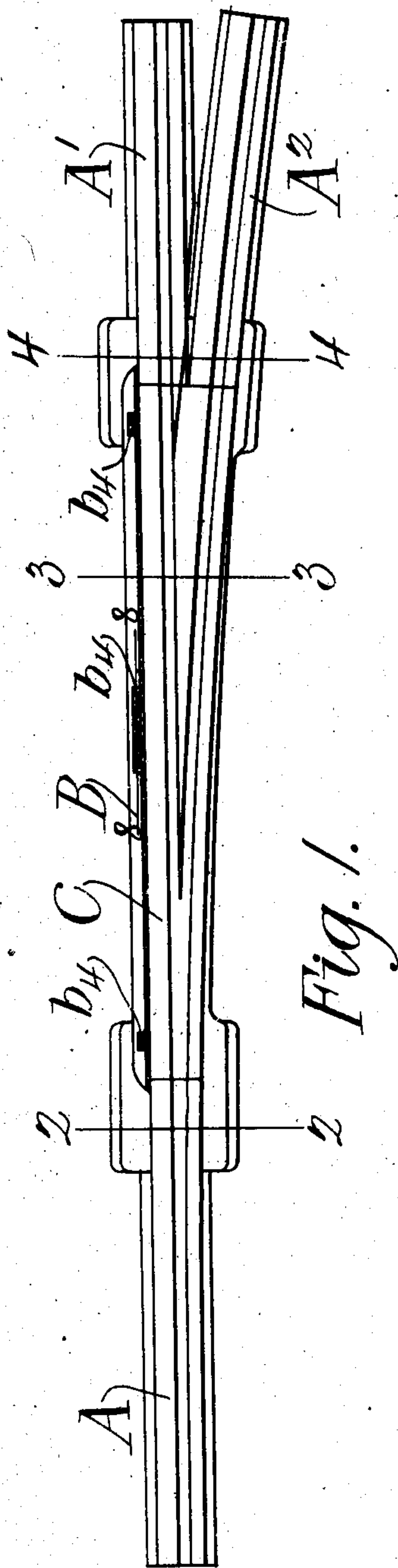


Fig. 1.

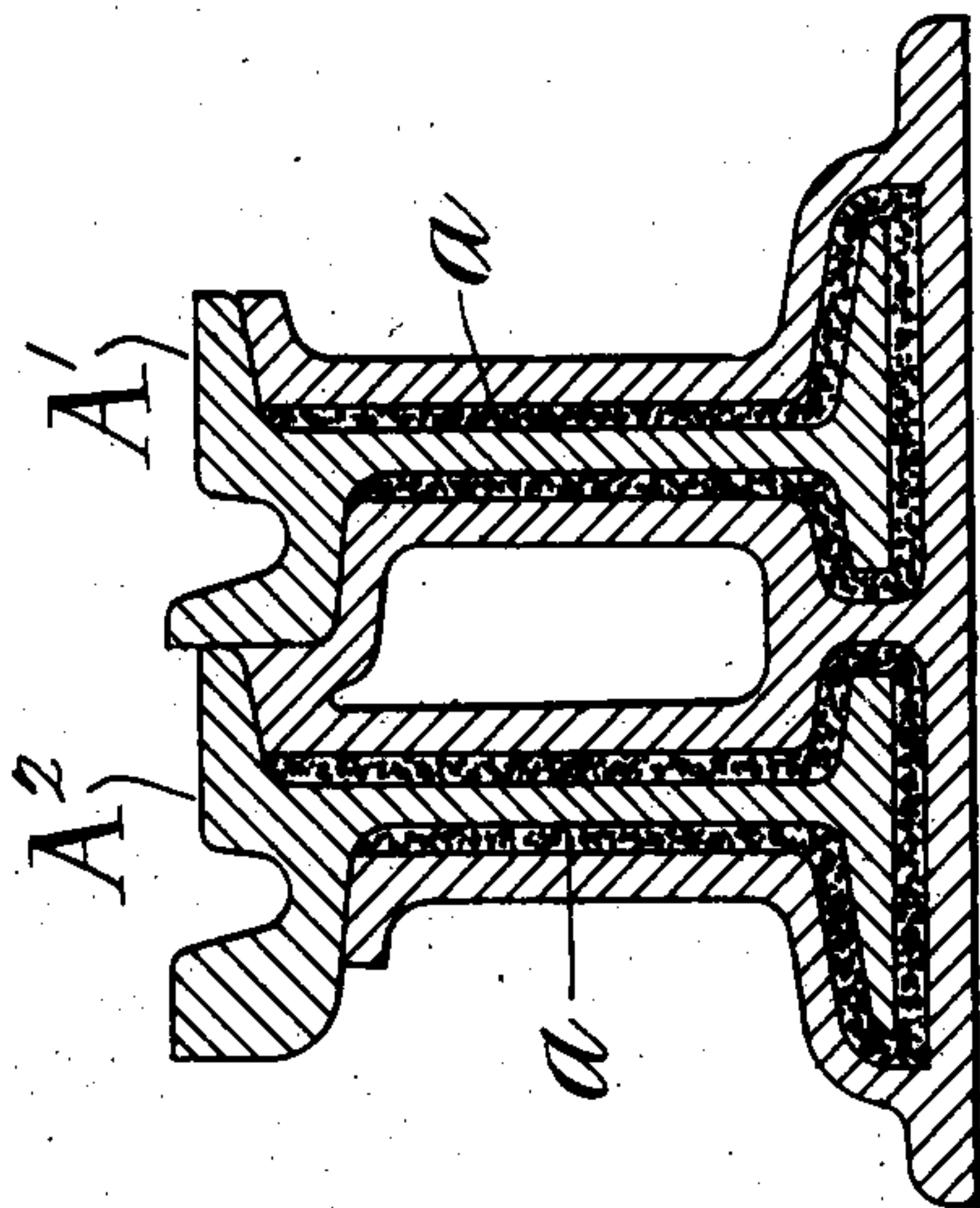


Fig. 4.

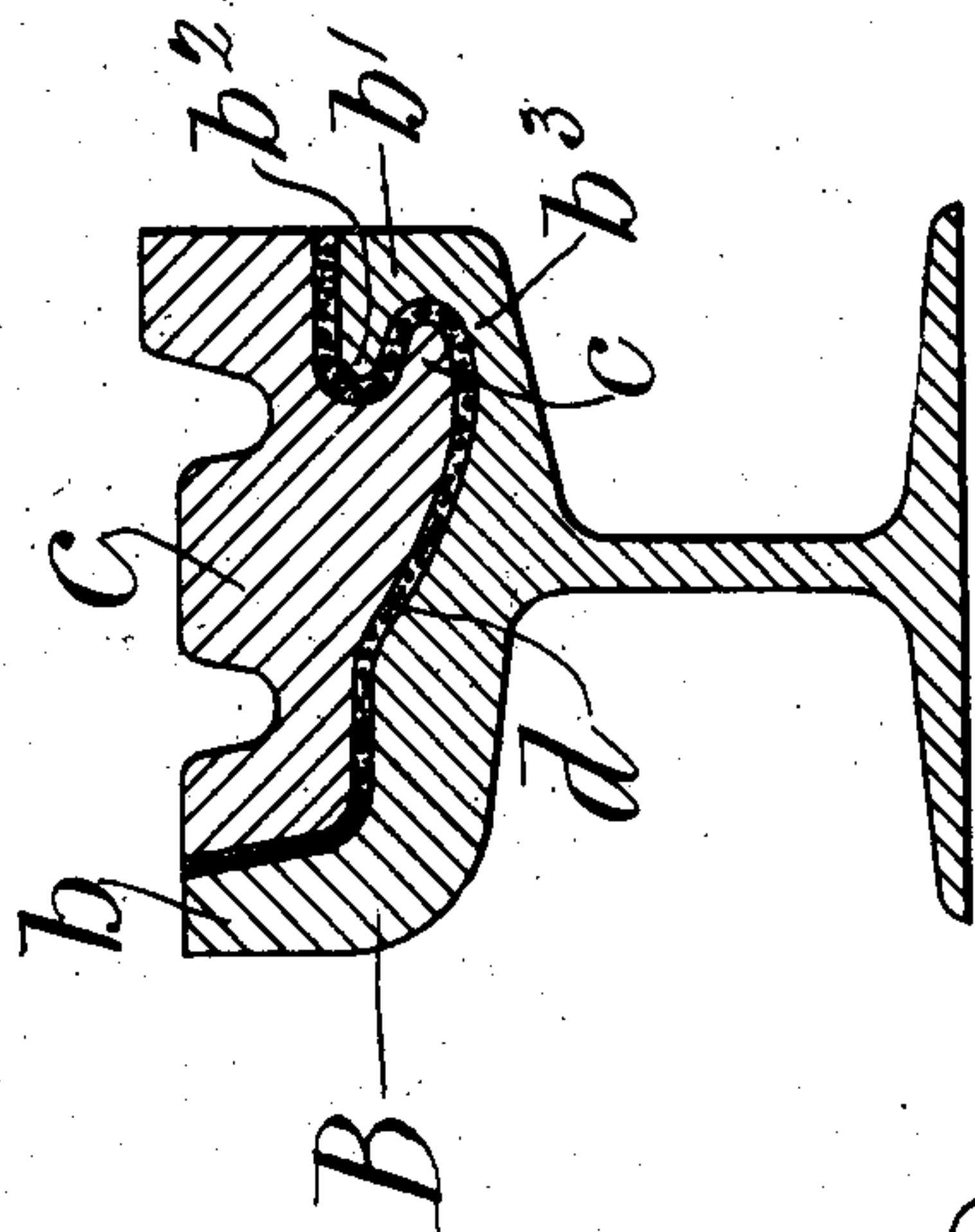


Fig. 3.

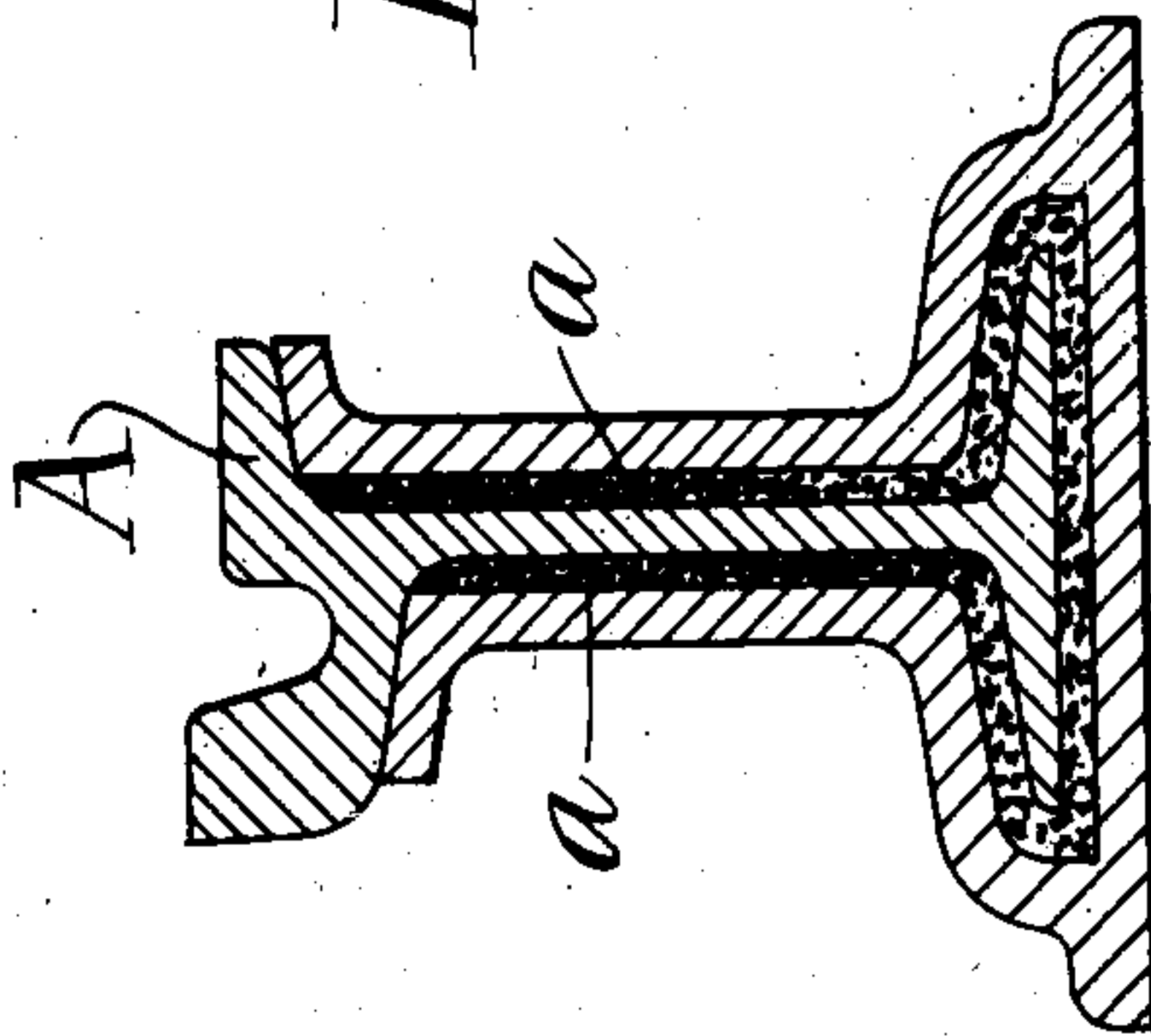


Fig. 2.

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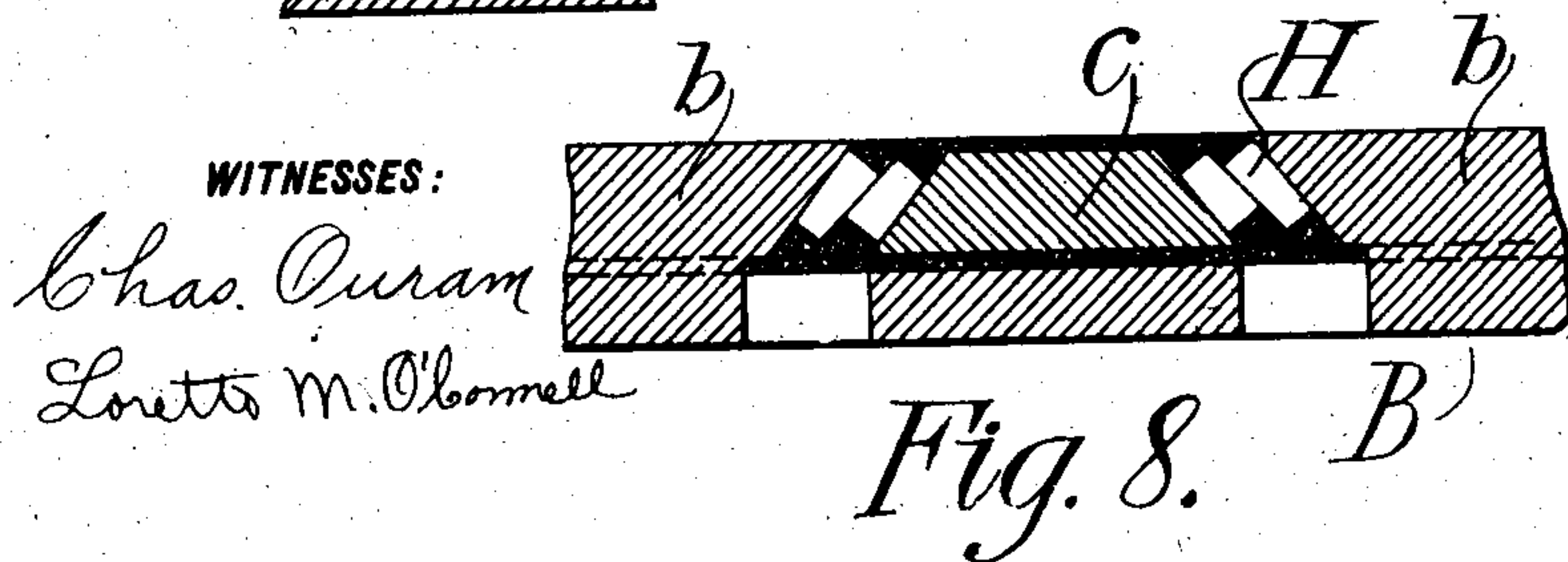
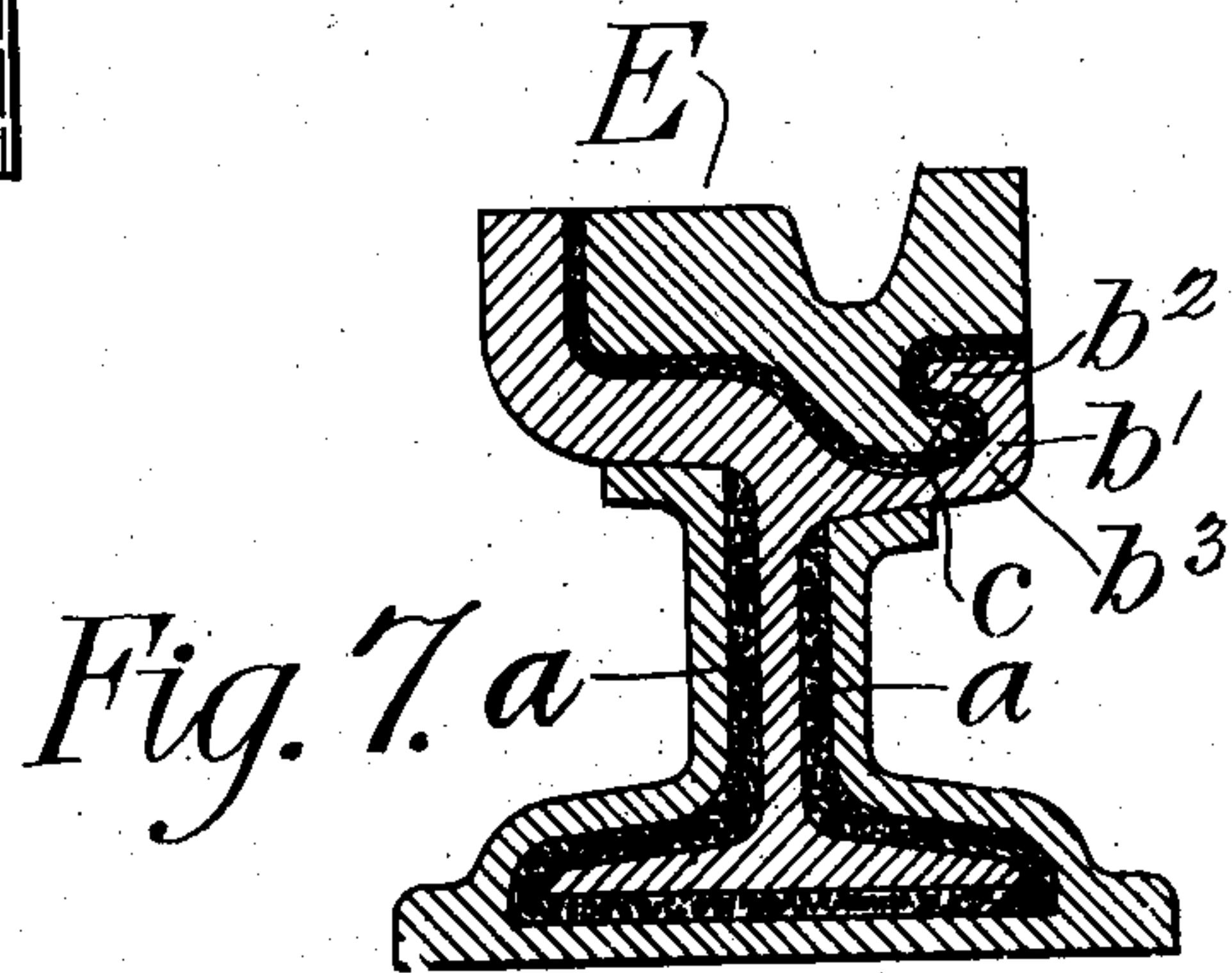
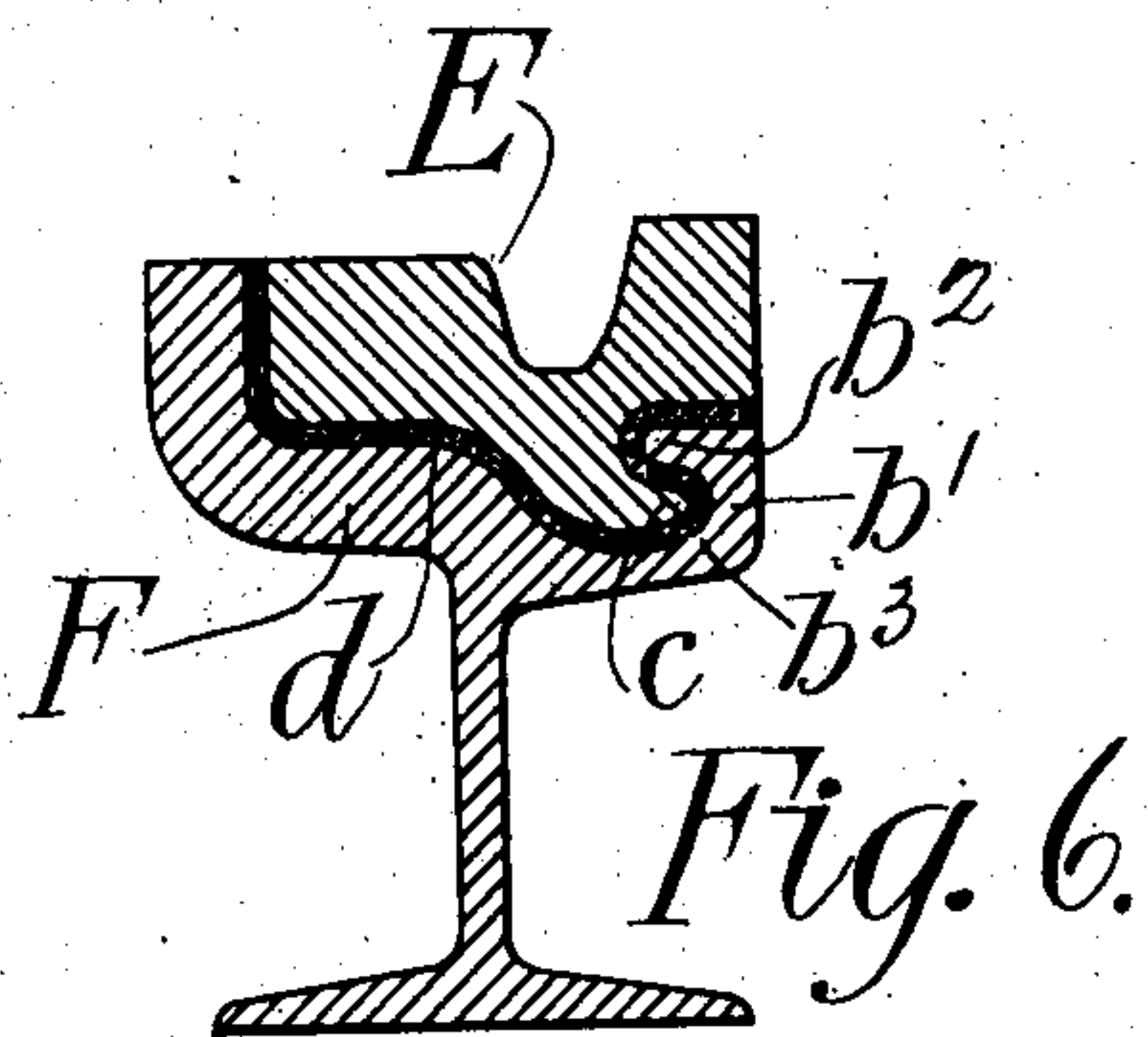
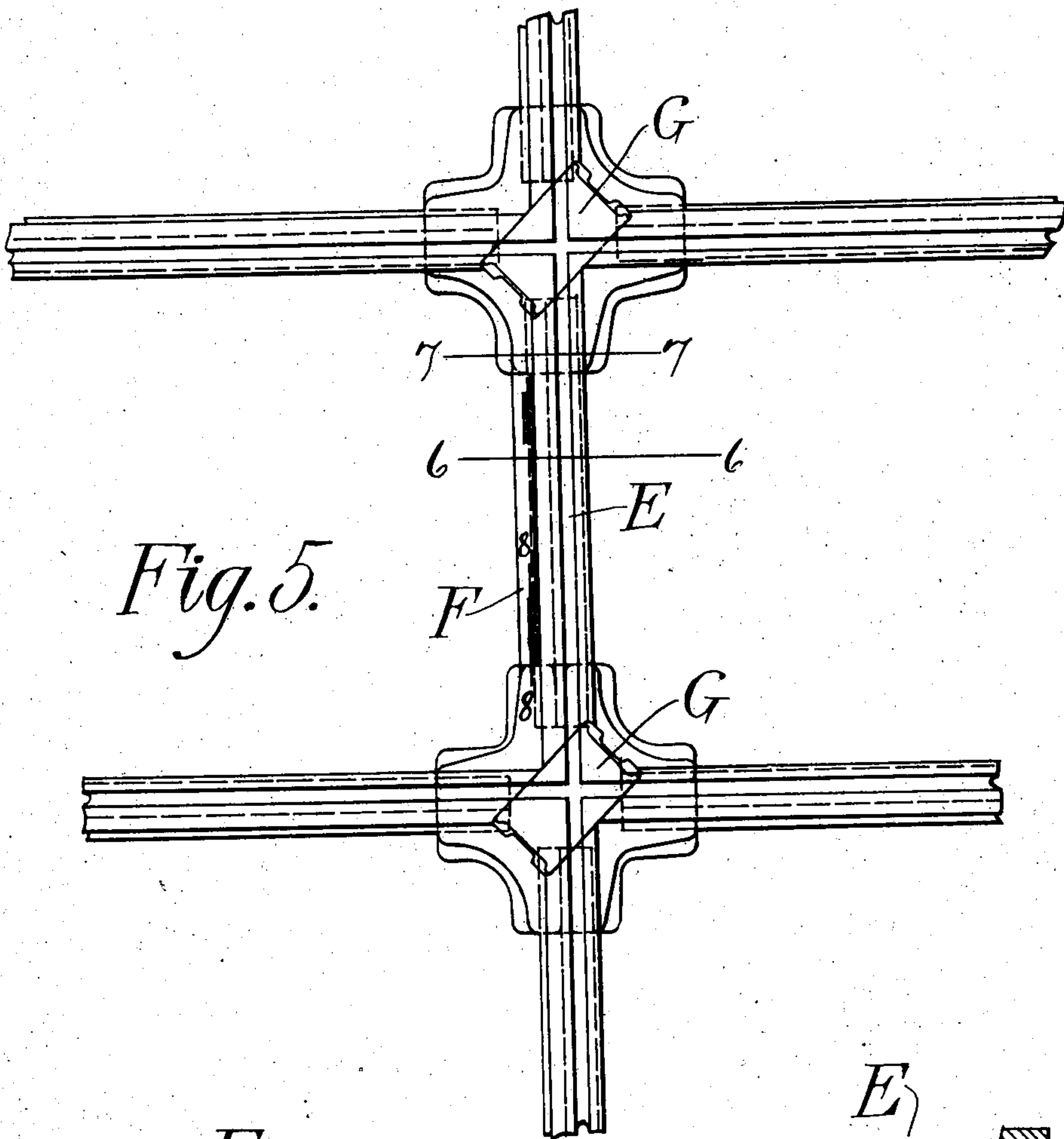
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No. 834,280.

PATENTED OCT. 30, 1906.

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2 SHEETS—SHEET 2.



WITNESSES:

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UNITED STATES PATENT OFFICE.

GEORGE M. ERVIN, OF JOHNSTOWN, PENNSYLVANIA, ASSIGNOR TO THE
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RAILWAY-TRACK STRUCTURE.

No. 834,280.

Specification of Letters Patent.

Patented Oct. 30, 1906.

Application filed June 6, 1905. Serial No. 264,024.

To all whom it may concern:

Be it known that I, GEORGE M. ERVIN, of Johnstown, in the county of Cambria and State of Pennsylvania, have invented a new and useful Improvement in Railway-Track Structures, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, which form a part of this specification.

My invention has relation to improvements in railway-track structures, and particularly to that class of such structures wherein a base or supporting portion carries a surface plate of harder metal.

My invention is designed to provide simple means for supporting and securing these surface plates to the supporting-body and is applicable to various specific structures wherever the surface plate is of considerable length, such as mates, tongue-switches, connecting-arms of crossings, slot work, and separable tread-rails.

The invention will be better understood by reference to the accompanying drawings, in which—

Figure 1 is a plan view of a switch mate embodying my invention; Figs. 2, 3, and 4, sections taken, respectively, on the lines 2 2, 3 3, and 4 4 of Fig. 1; Fig. 5, a plan view of a crossing also embodying the invention; and Figs. 6 and 7, sections taken on the lines 6 6 and 7 7, respectively, of Fig. 5. Fig. 8 is a detail view of a fastening, taken on the lines 8 8 of Figs. 1 and 5.

Referring first to the mate, (shown in Figs. 1 to 4, inclusive,) the letters A A' A² designate the connecting rail members of the structure, and B the central body portion, which is in the present instance an integral steel casting. The end portions of this casting are cored out to form pockets, in which the said members are seated and surrounded by a metal filling *a*, introduced in a molten state, this part of the construction being in accordance with my Patent No. 784,735, dated March 14, 1905, to which reference may be had.

C designates the hard-metal surface plate, on which are formed the track-surfaces, including the guard for connecting the rail A with the rails A' A² and whose ends directly abut the ends of the heads of all these rails, so that the car-wheels pass directly from the rails to the plate without the intervention of

any part of the casting B. Said casting is formed at one side with the upwardly-extending flange *b*, forming one side of a pocket for the plate C. The opposite side of the casting has its flange *b'* cut off at a lower level and undercut to form the lip *b*², toward and underneath which the said pocket is deepened, as shown at *b*³. Formed on the under side of the plate C is a longitudinally-extending hook flange or lip *c*, which is shaped to loosely engage or interfit with the lip *b*², as clearly shown in Fig. 3, space being preferably left at this point, as well as underneath and at the opposite side of the plate, for a filling and bedding *d*, of spelter or like material. The flange *b* is recessed at *b*⁴ to form seats for plate-securing keys. These keys may be of any character capable of being released from the surface of the structure. I prefer to use those shown in my Patent No. 729,049, dated May 26, 1903, and indicated in Fig. 8, the divided keys being marked H. The bottoms of the plate and of its pocket and also the parts *b*² and *c* are curved, so that when the fastening-keys are removed the plate can be readily removed from its seat by applying a lifting or prying device to its straight side at the key-seats.

It will be readily seen that by reason of the curved shape of the interfitting parts above described the plate C will move readily under a prying action on the interposed layer of spelter, which will thus offer no resistance to its removal.

Figs. 5, 6, and 7 show a surface plate E applied to the connecting-arm F of a crossing between the usual intersection-plates G. Said plate E may be a separable piece, or it may be cast integrally with one or both of the plates G. The manner in which this plate is seated on the arm F is in all respects similar to that shown on Sheet 1, and corresponding parts are indicated by corresponding reference characters.

The sectional views shown by Figs. 2 and 6 may also be taken to represent the invention as applied generally to removable tread-rails.

It will be understood that the structures shown and described are simply illustrative of certain particular applications of the main feature of the invention and that it is also applicable to various other specific forms of track structures.

Having thus described my invention, what

I claim as new, and desire to secure by Letters Patent, is—

1. A railway-track structure having a base portion provided with a pocket, and a removable surface portion seated in said pocket, said portions having interfitting hook members, the bottom of the surface portion and the bottom wall of the pocket being curved.

2. In a railway-track structure, the combination with a base portion having a raised pocket-forming flange at one side, and a depressed hooked flange or lip at the opposite side, of a removable surface portion having a hooked flange engaging the hooked flange of the base portion, the bottom of the surface

portion and the bottom wall of its seat being curved.

3. In a railway-track structure, a body portion, and a removable surface portion, said portions having interfitting hooks at one side, removable securing means at the opposite side, and the surface portion having a curved bottom bearing.

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

GEORGE M. ERVIN.

Witnesses:

LORETTO M. O'CONNELL,
H. W. SMITH.