

No. 815,869.

PATENTED MAR. 20, 1906.

G. SHOEMAKER.
RAILWAY TRACK STRUCTURE.
APPLICATION FILED MAR. 11, 1905.

Fig. 1.

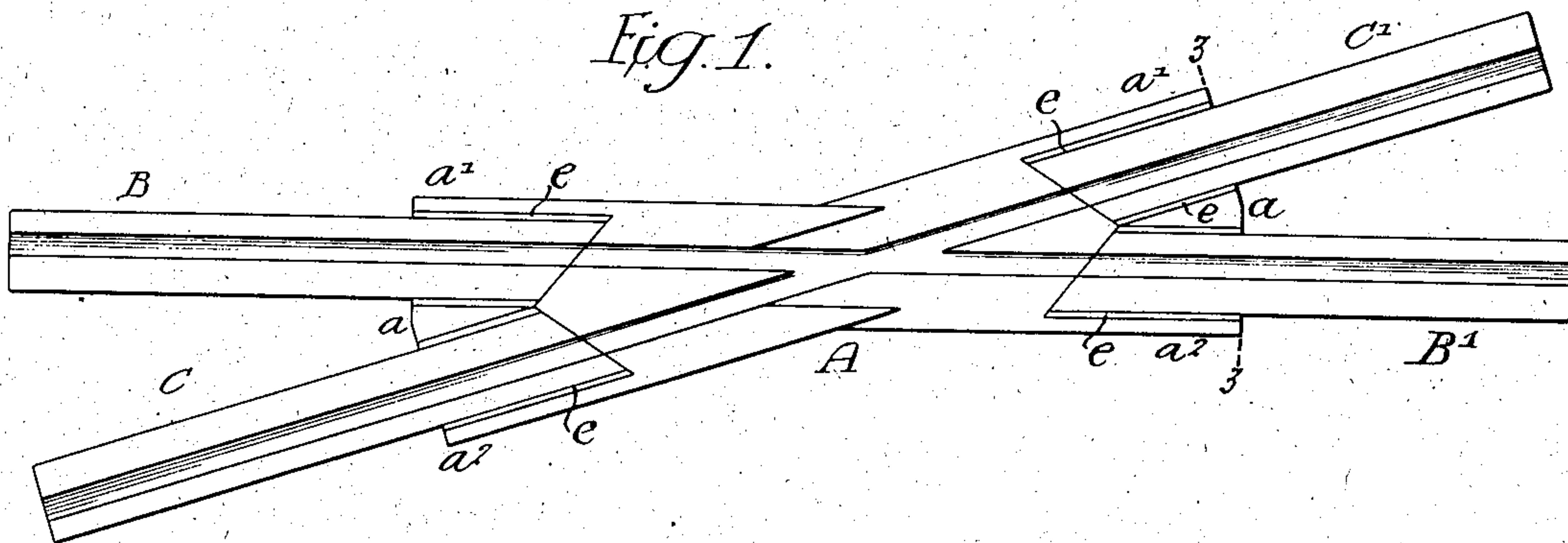


Fig. 2.

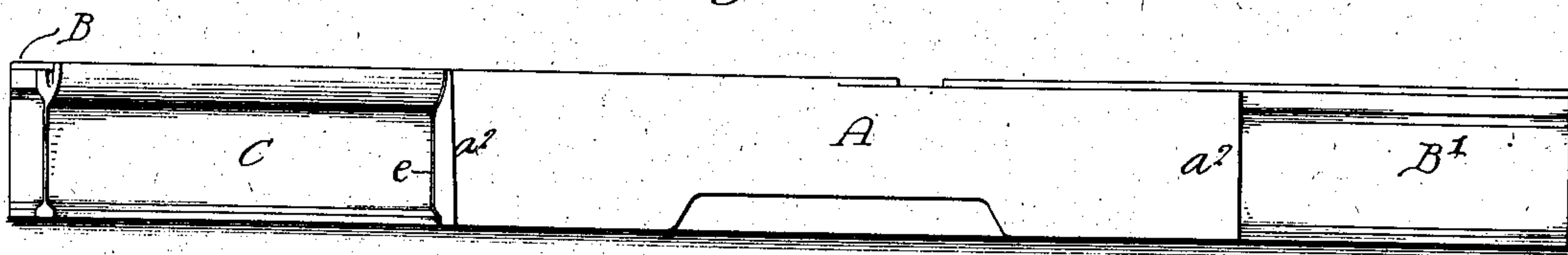


Fig. 3.

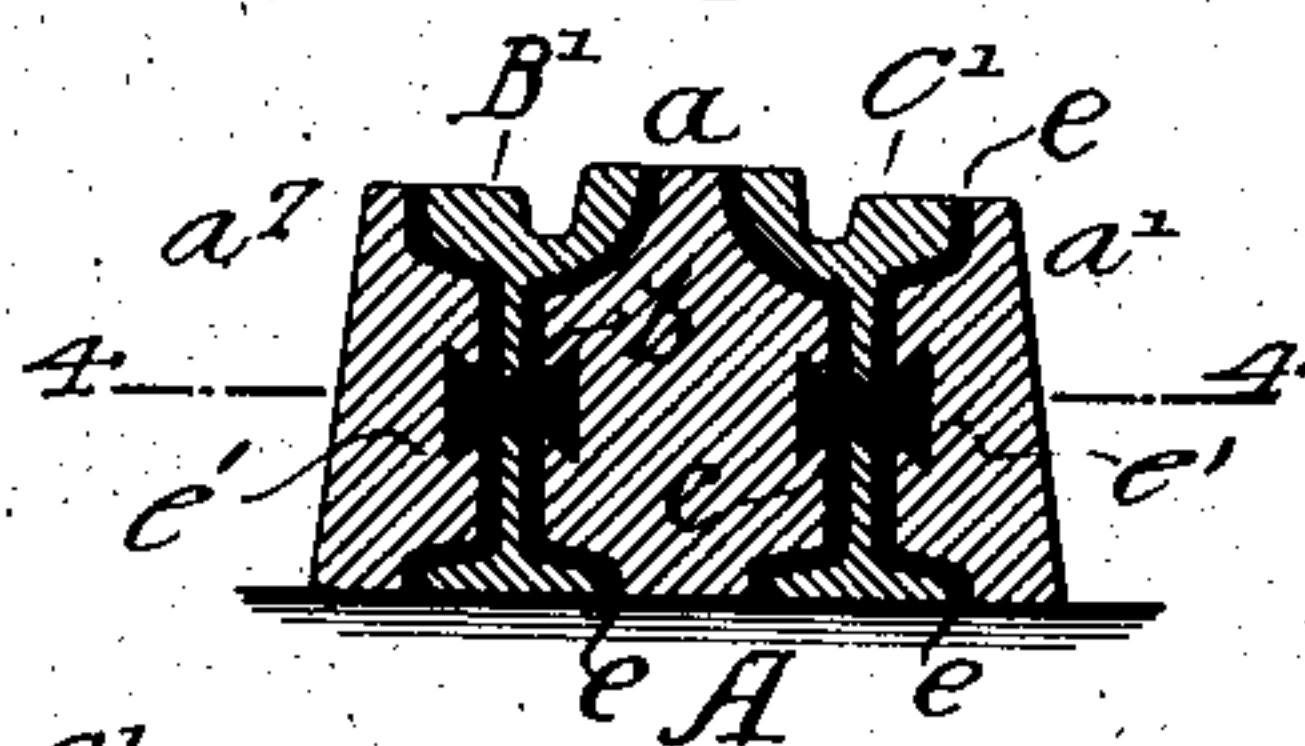


Fig. 4.

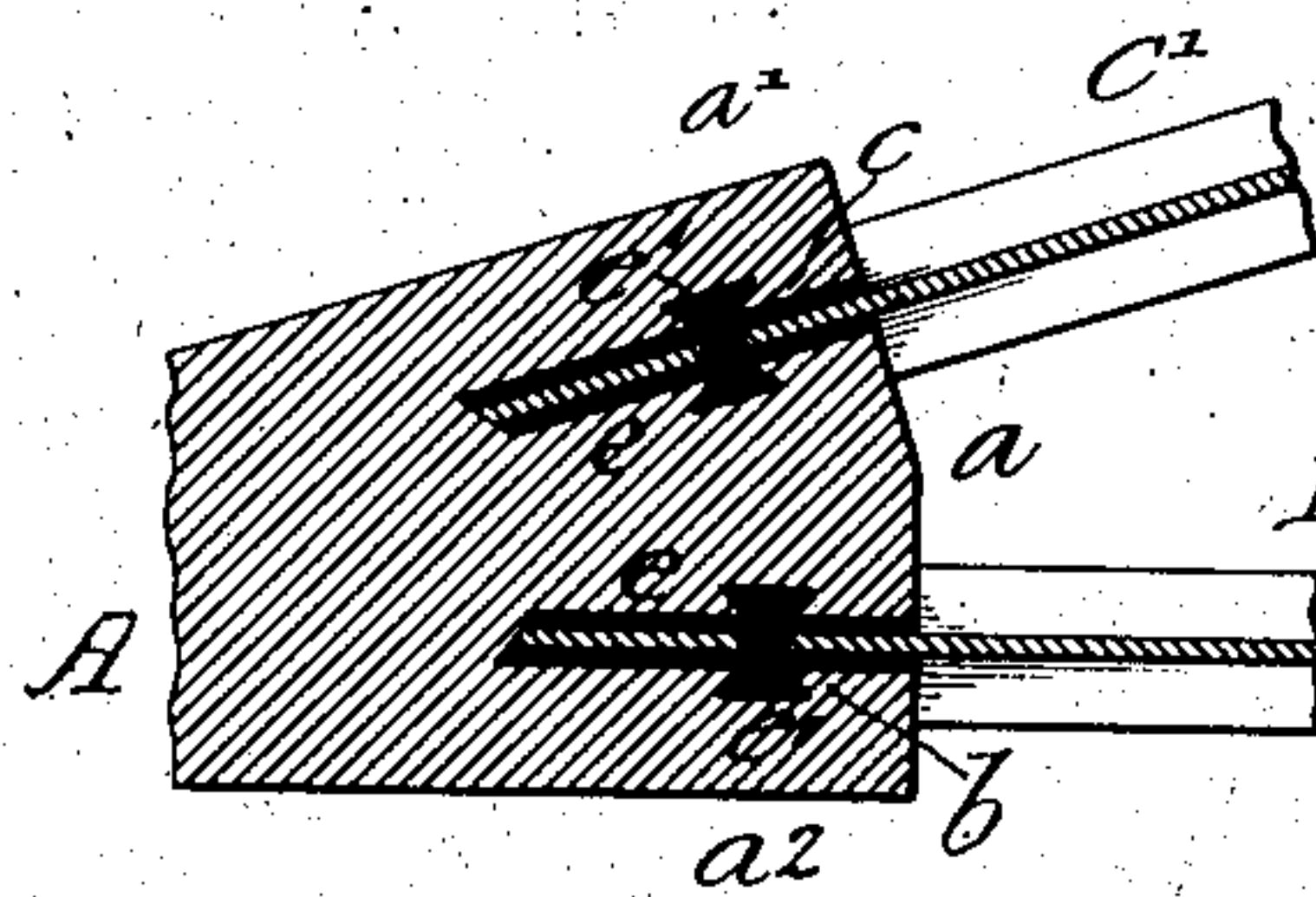


Fig. 5.

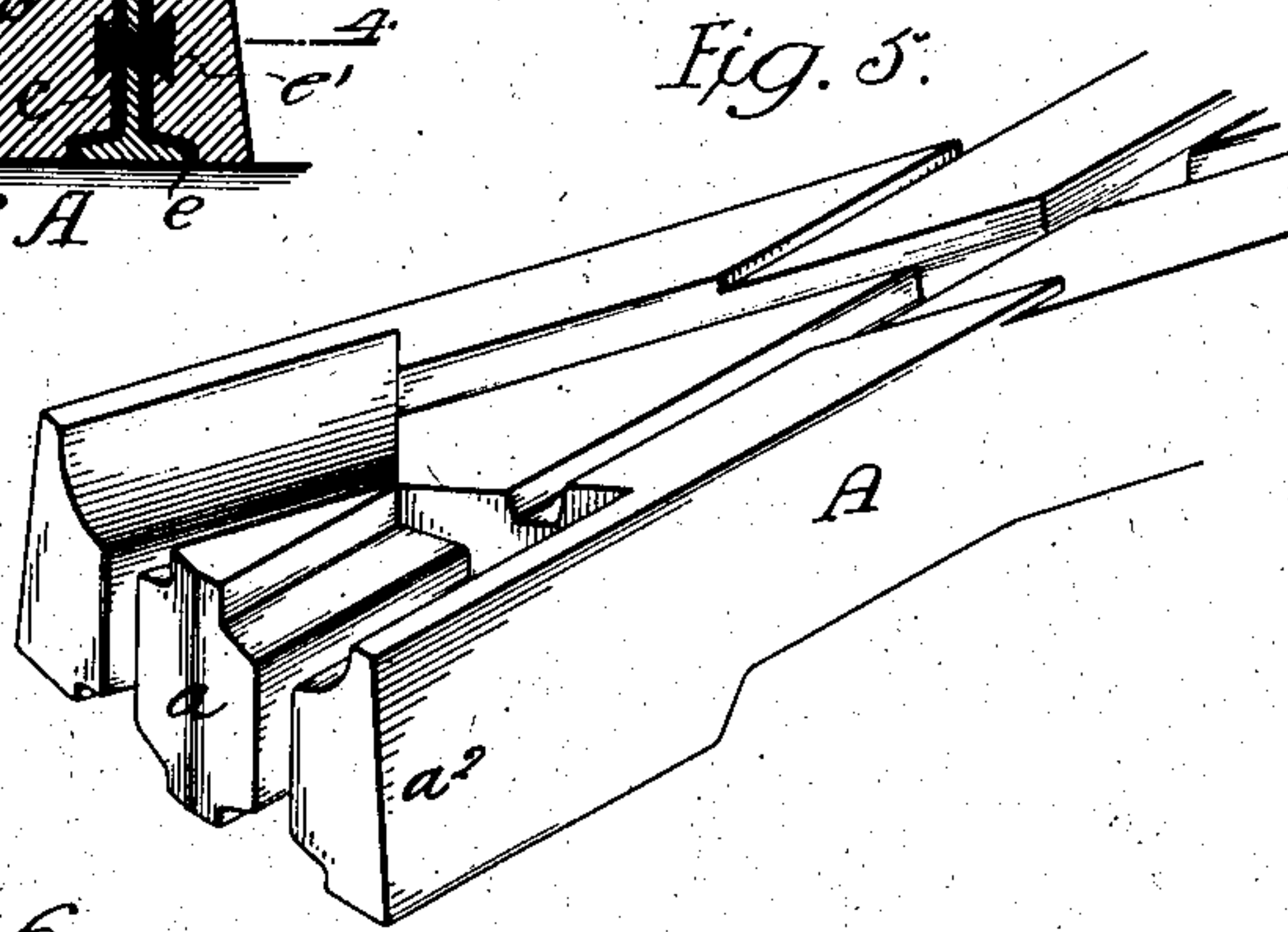
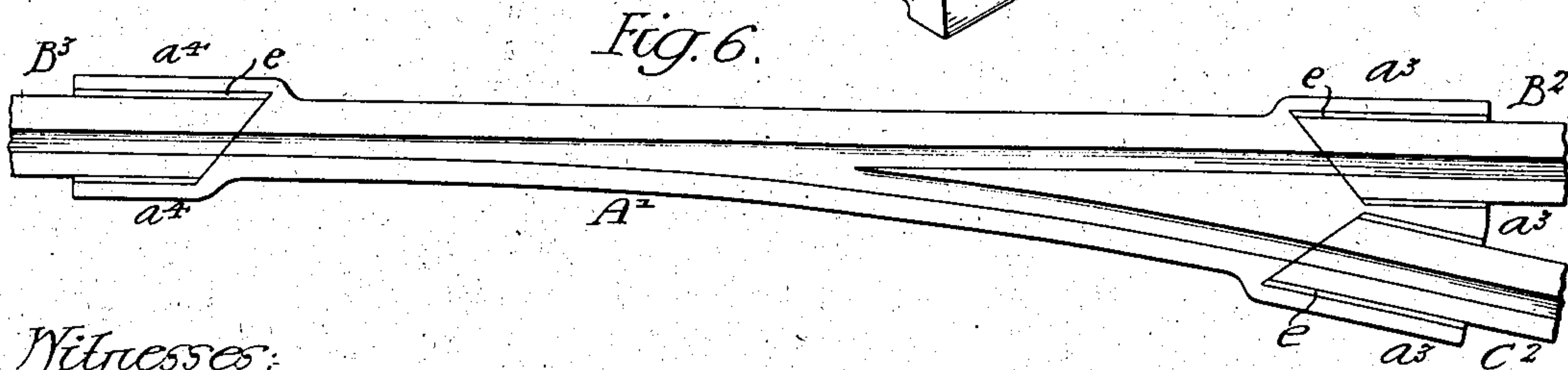


Fig. 6.



Witnesses:

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UNITED STATES PATENT OFFICE.

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RAILWAY-TRACK STRUCTURE.

No. 815,869.

Specification of Letters Patent.

Patented March 20, 1906.

Application filed March 11, 1905. Serial No. 249,563.

To all whom it may concern:

Be it known that I, GEORGE SHOEMAKER, a citizen of the United States, residing in Philadelphia, Pennsylvania, have invented certain Improvements in Railway-Track Structures, of which the following is a specification.

My invention relates to certain improvements in railway-track structures, such as frogs, switches, crossings, and drawbridge-funnels, where it is desired to attach one or more rails to a casting.

The object of my invention is to provide means whereby the rail or rails can be permanently attached to the casting and the base of the casting be on a plane with the base of the rails.

In the accompanying drawings, Figure 1 is a plan view of a frog structure, illustrating my invention. Fig. 2 is a side view of Fig. 1. Fig. 3 is a transverse section on the line 3 3, Fig. 1. Fig. 4 is a sectional plan view on the line 4 4, Fig. 3. Fig. 5 is a perspective view of a portion of the structure; and Fig. 6 is a plan view of a switch-mate, illustrating my invention.

A is the body of the frog structure, consisting of a casting having intersecting wheel-flange grooves and tread and guard portions, which are in line with the rails. At each end of the structure shown in Fig. 1 are three projecting arms a a' a^2 . (Clearly shown in Fig. 5.) These arms are spaced a sufficient distance apart to allow for the insertion of the ends of the rails B B' and C C' and the securing metal e . The inner walls of the arms follow the general contour of the rails, but do not extend above or below the rails, so that the base of the structure is on the same plane as the bases of the rails.

In order to secure the rails rigidly to the structure, I preferably perforate the rails at b and c and form cavities e' in the walls of the structure, as shown in Figs. 3 and 4, and these cavities are preferably undercut, as shown.

To assemble the parts, the ends of the rails are mounted in the space between the arms and held in proper alinement while molten metal e , such as zinc, is poured into the space between the rails and the inner walls of the arms, the metal flowing into the cavities and

through the holes in the rails, and when the metal is set the rails will be firmly secured to the structure.

In Fig. 6 I have shown a switch-mate A', having three arms a^3 at one end and two arms a^4 at the opposite end, so that two rails B² and C² can be attached to one end of the structure and a single rail B² can be attached to the opposite end.

The invention can be applied to a crossing structure or to a track structure to which a single rail is to be attached, such as a drawbridge-funnel.

In an application for patent filed by Arthur B. Davenport, Jr., on the 28th day of February, 1905, Serial No. 247,688, the idea of securing the rails in pockets in the structure is broadly claimed, and I therefore lay no claim to this feature in this application.

I claim as my invention—

1. A railway-track structure having two arms at one end, said arms being spaced apart to receive a rail and the securing metal, the space being open at top and bottom, substantially as described.

2. A railway-track structure having two arms at one end said arms being spaced apart to receive a rail and the securing metal, the space being open at top and bottom, the inner walls of the arms having cavities therein for the securing metal, substantially as described.

3. The combination of a railway-track structure having two arms at one end, a rail mounted in the space between the arms and securing metal filling the space between the inner walls of the arms and the rail, the base of the structure and the base of the rail being on the same plane, substantially as described.

4. The combination of a railway-track structure having two arms at one end, a rail mounted in the space between the arms and securing metal filling the space between the inner walls of the arms and the rail, the base of the structure and the base of the rail being on the same plane, the inner walls of the arms having cavities therein and the end portions of the rails being perforated, substantially as described.

5. The combination of a railway-track structure such as a frog, having three arms

projecting from each end with a rail mounted
in each space formed by the arms, and secur-
ing metal filling the space between the rails
and the arms, the spaces between the arms
5 being open at top and bottom, substantially
as described.

In testimony whereof I have signed my

name to this specification in the presence of
two subscribing witnesses.

GEORGE SHOEMAKER.

Witnesses:

V. ANGEUR,

THOS. E. JENKINS.