

No. 679,391.

Patented July 30, 1901.

J. B. McCUNE.  
RAILWAY RAIL.

(Application filed Feb. 2, 1901.)

(No Model.)

2 Sheets—Sheet 1.

Fig. 1.

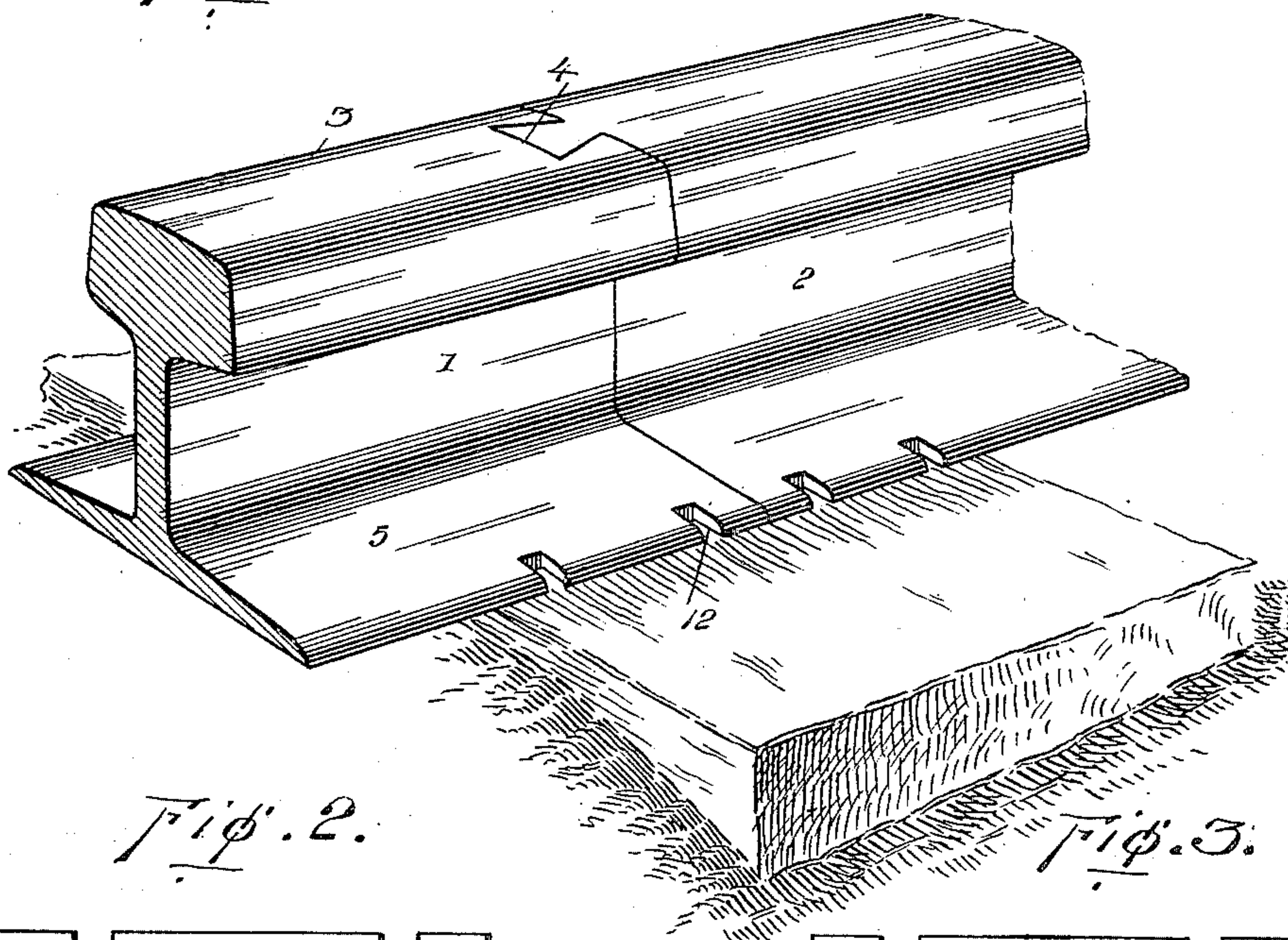


Fig. 2.

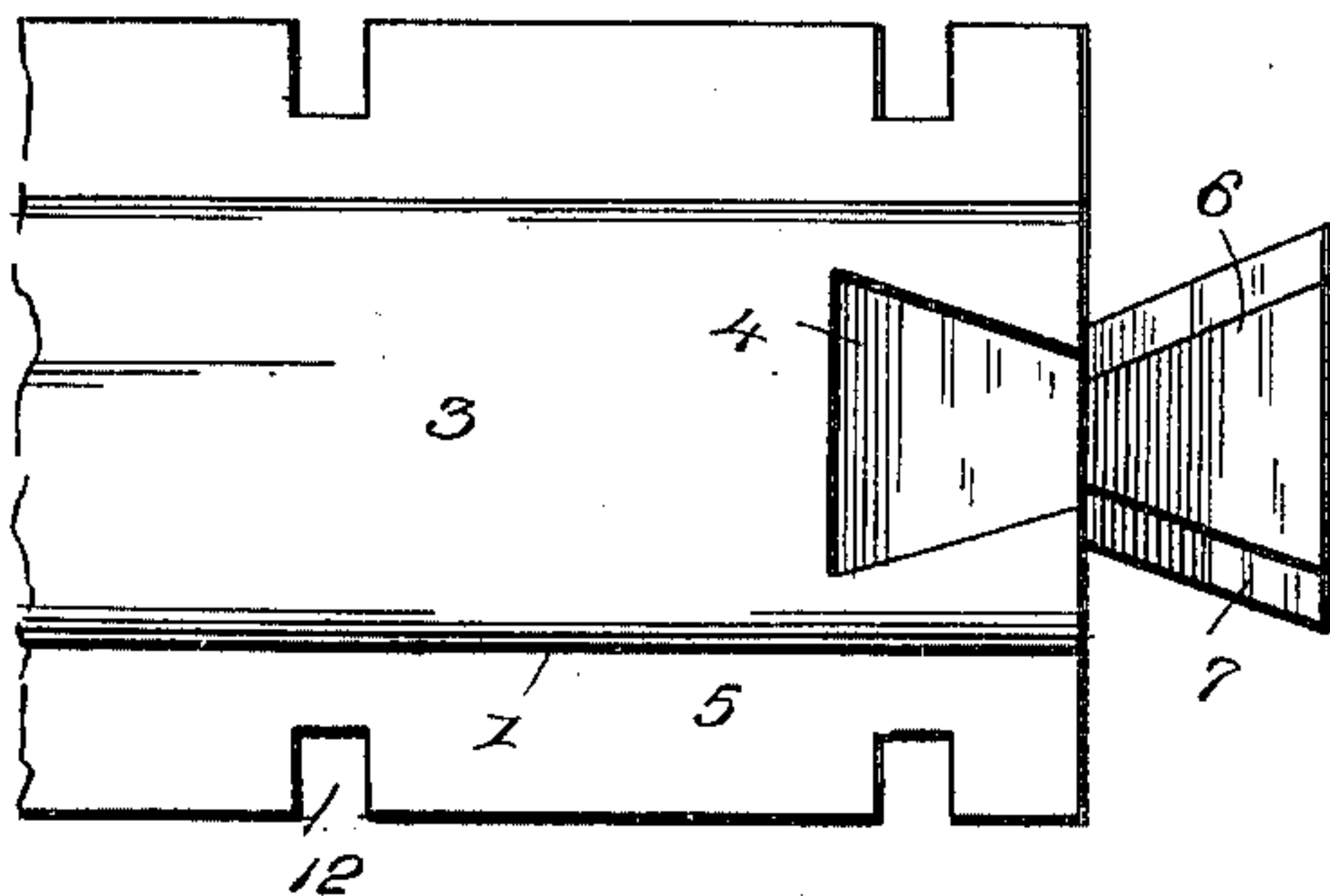


Fig. 3.

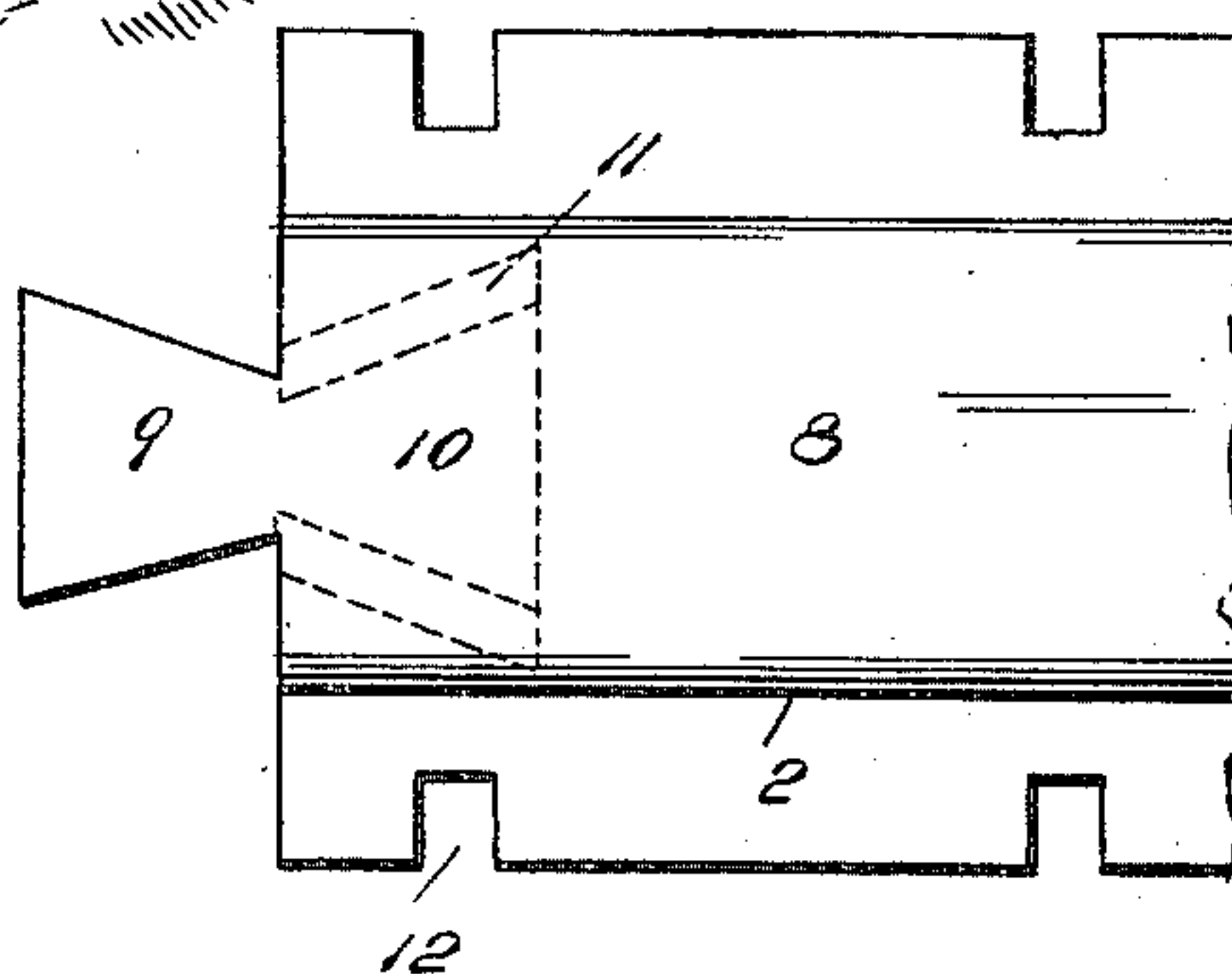
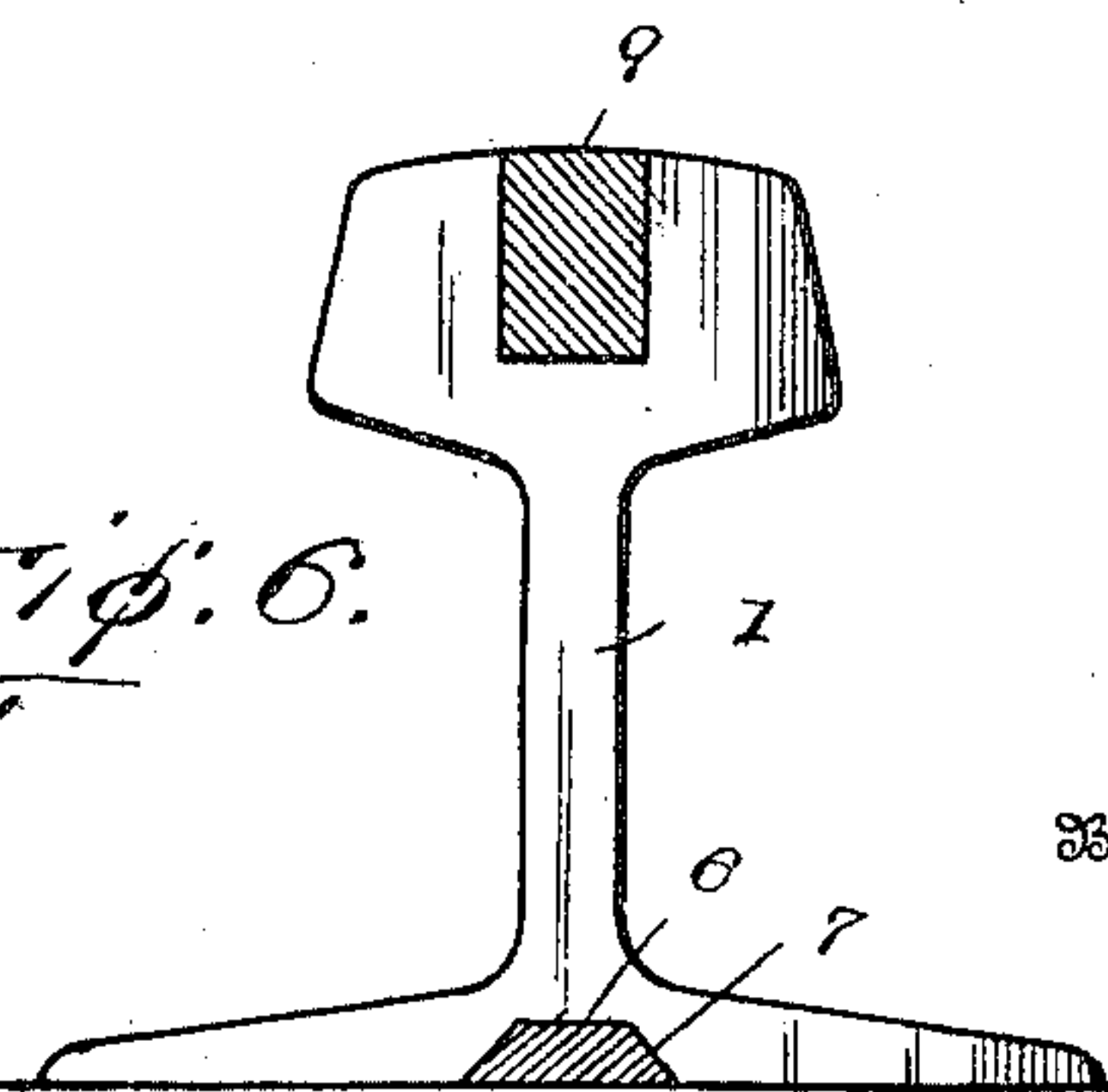


Fig. 6.



Witnesses

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2 Sheets—Sheet 2.

Fig. 4.

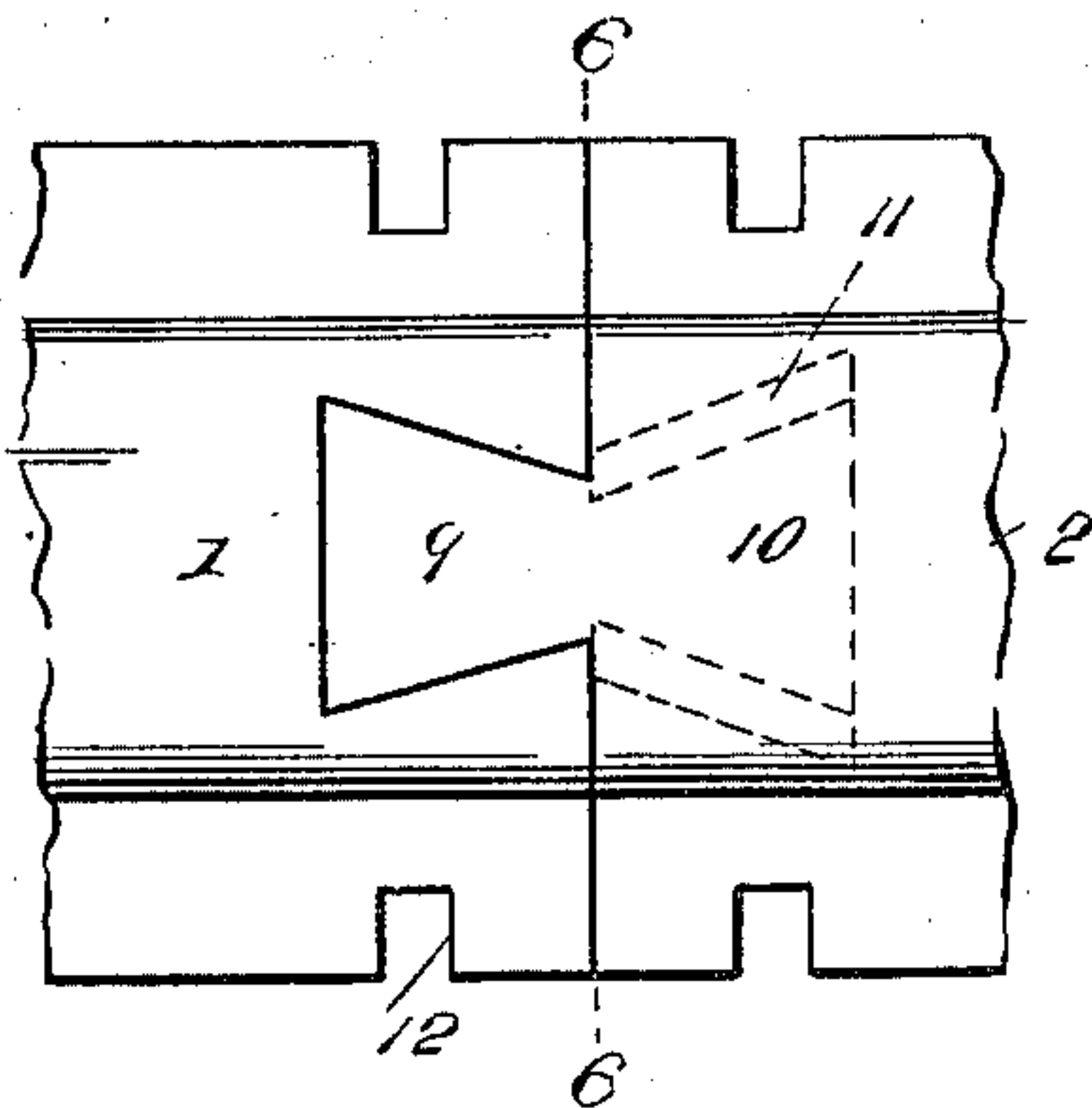


Fig. 5.

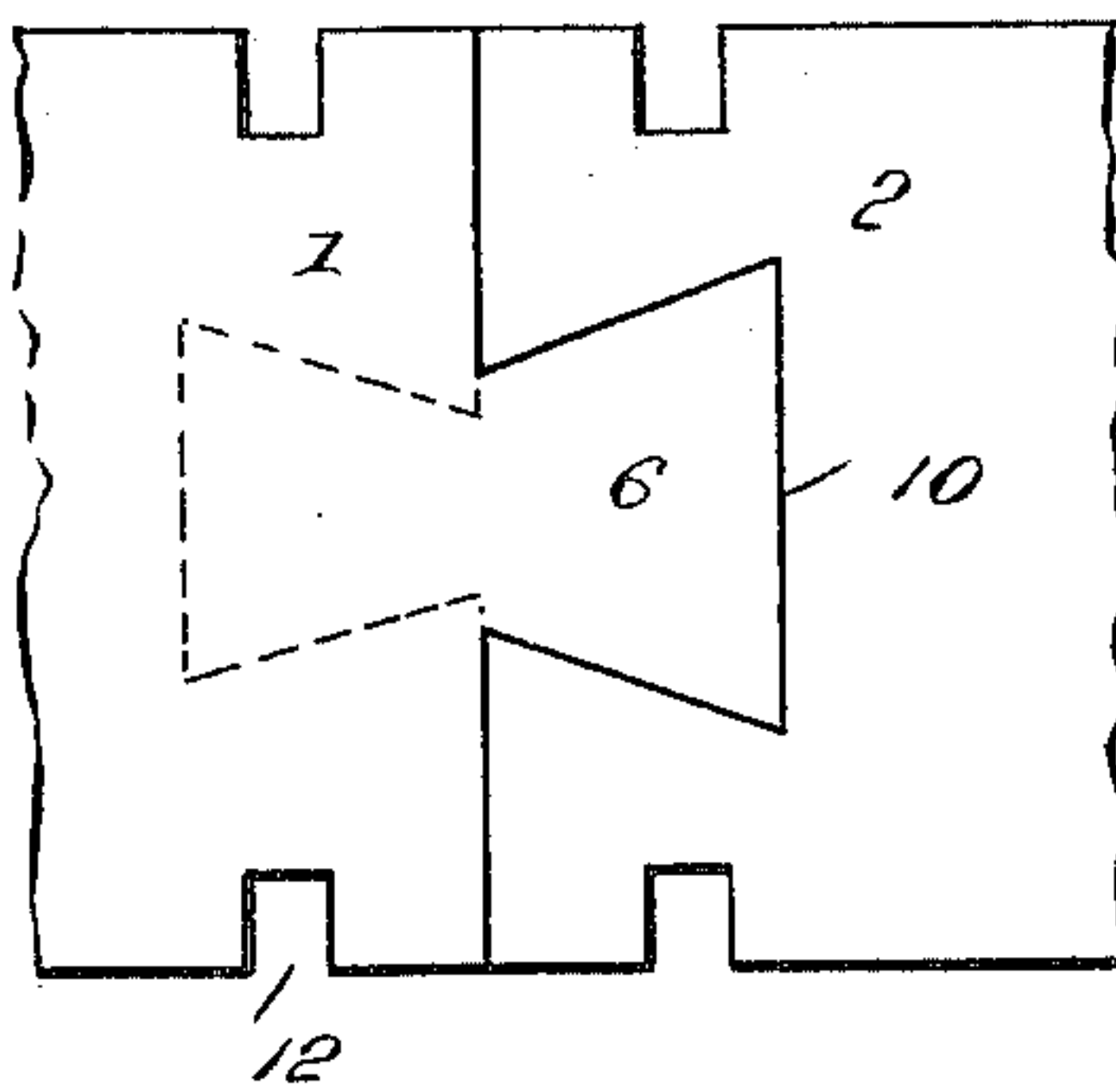


Fig. 7.

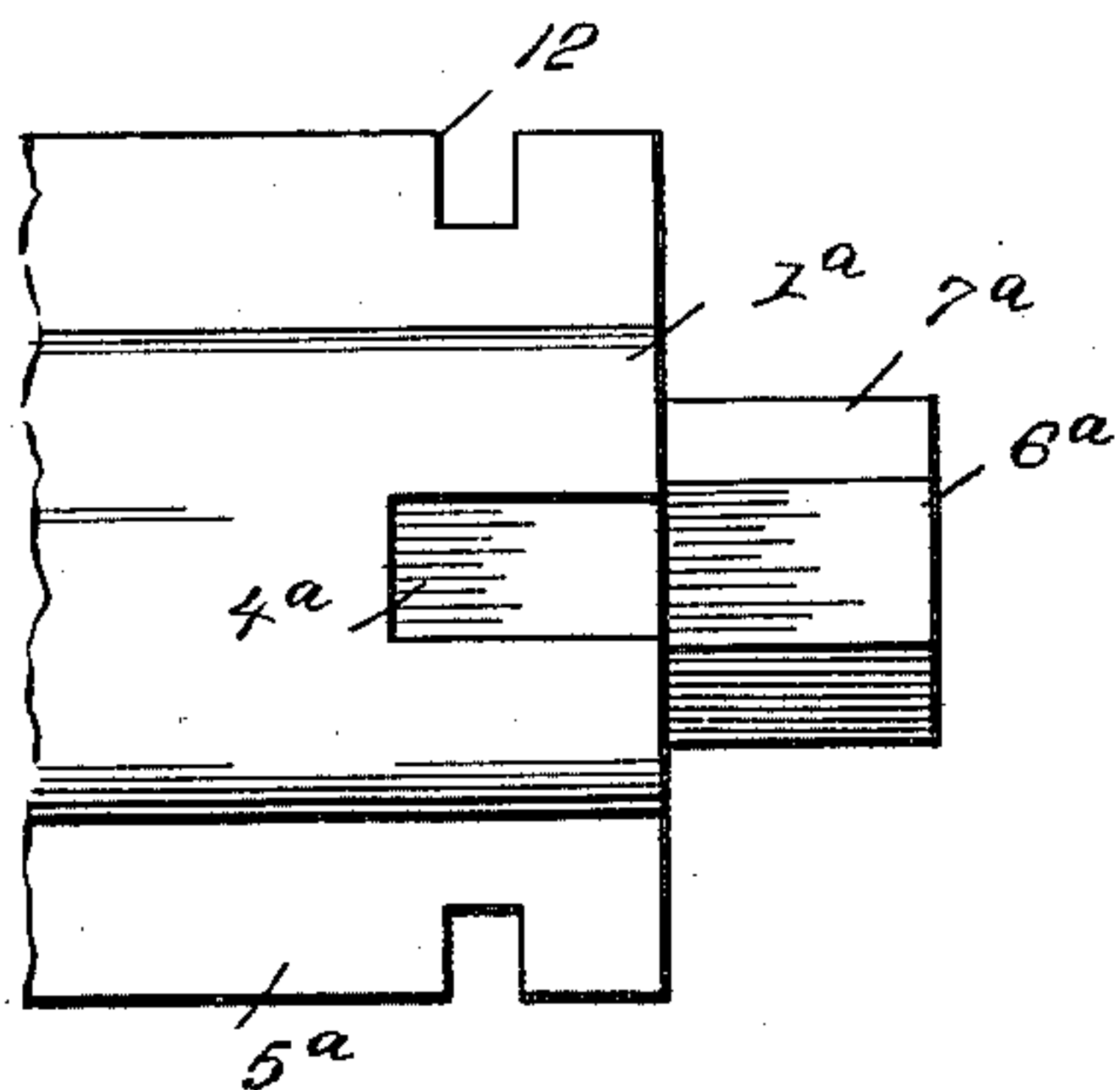


Fig. 8.

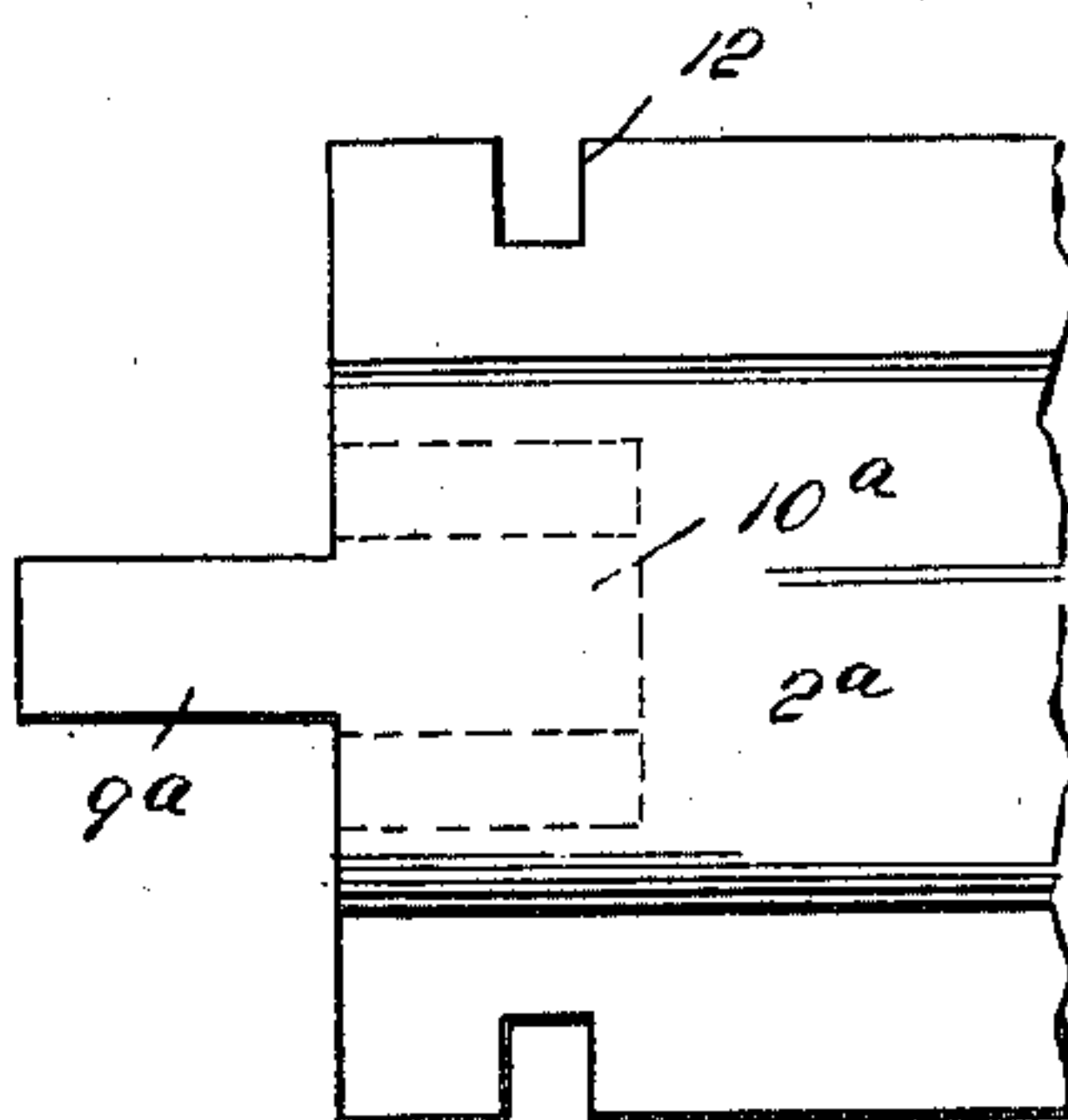
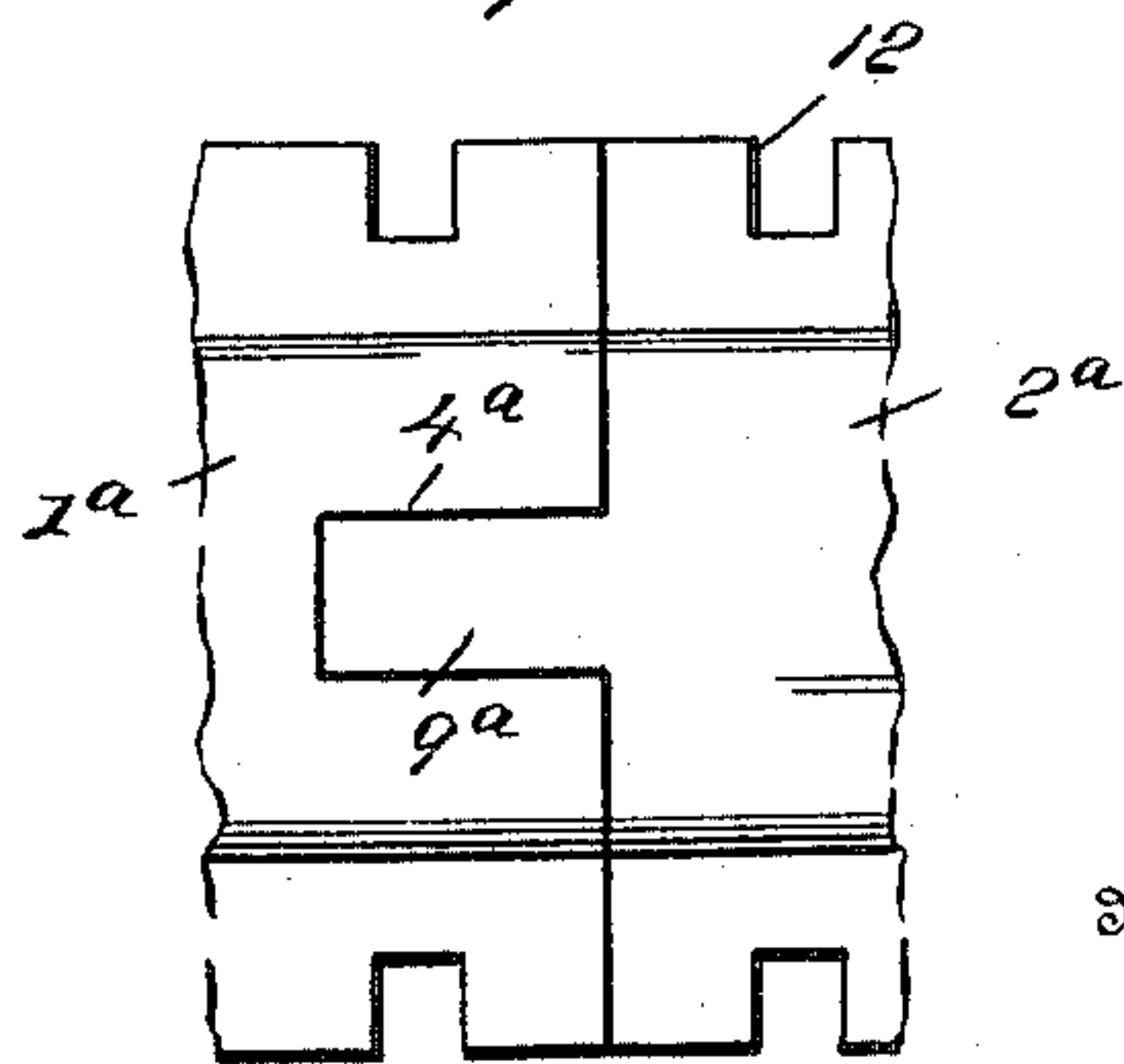


Fig. 9.



Witnesses

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# UNITED STATES PATENT OFFICE.

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## RAILWAY-RAIL.

SPECIFICATION forming part of Letters Patent No. 679,391, dated July 30, 1901.

Application filed February 2, 1901. Serial No. 45,757. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES B. McCUNE, a citizen of the United States, residing at Newcastle, in the county of Lawrence and State of Pennsylvania, have invented new and useful Improvements in Railway-Rails, of which the following is a specification.

My invention relates to railway-rails, and more particularly to improved means for securing the meeting ends of rail-sections together.

The primary object of the invention is to avoid the employment of fish-plates or splice-bars in securing sections of railway-rails together, and thus prevent the weakening of the rails by forming bolt-holes therein.

The invention consists in rail-sections provided at their ends with interlocking projections and recesses, as hereinafter fully described in connection with the accompanying drawings, which form a part of this specification, and as defined in the appended claims.

In the drawings, Figure 1 is a view in perspective of two rail-sections constructed in accordance with my invention. Fig. 2 is a plan view of one of said sections. Fig. 3 is a similar view of the other section. Fig. 4 is a plan view of Fig. 1. Fig. 5 is a reverse or bottom plan of Fig. 4. Fig. 6 is a section on the line 6 6 of Fig. 4. Fig. 7 is a plan view of a modified construction of the device. Fig. 8 is a plan view of a rail-section adapted to coact with the section shown in Fig. 7, and Fig. 9 is a plan view of the sections shown in Figs. 7 and 8 secured together.

Referring to Figs. 1 to 6, inclusive, the numerals 1 and 2 designate two meeting sections of rail. The head 3 of the section 1 is formed on its tread-surface with a dovetail recess 4, and from the base 5 of said section projects a dovetail tongue 6, the sides 7 of which are oppositely beveled, as clearly shown in Figs. 2 and 6. The head 8 of the section 2 is formed with a dovetail tongue projection 9, adapted to fit the recess 4 in the section 1, and the under surface of the section 2 is formed with a dovetail recess 10, the side walls 11 of which are beveled to receive the extension 6, projecting from the base of the rail-section 1.

It will be obvious that when the ends of the rail-sections are connected by the double interlocking dovetail tongue and recess connection shown both longitudinal and lateral movement are prevented and accidental separation of the sections is effectively prevented.

The base of each rail-section is formed adjacent to its ends with slots 12 to receive spikes for securing the rails to the ties.

In Figs. 7, 8, and 9 I have illustrated a modification of the invention in which the recesses and projecting tongues of the sections instead of being of dovetail form are straight or in longitudinal alinement with the rails. In this embodiment of the invention the section 1<sup>a</sup> is formed with a rectangular recess 4<sup>a</sup> in its head, while its base 5<sup>a</sup> is provided with a straight tongue 6<sup>a</sup>, having beveled sides 7<sup>a</sup>. The section 2<sup>a</sup> is formed with a straight tongue 9<sup>a</sup>, projecting from its head, and with a straight recess 10<sup>a</sup> to receive the tongue 6<sup>a</sup> of the adjacent rail-section, the side walls of the recess being beveled to fit the tongue 9<sup>a</sup>. This modified construction permits the sections to be connected by bringing the ends together on a horizontal plane and also allows for expansion and contraction, while in the form first described, Figs. 1 to 6, the ends of the rail-sections must be joined by an overlapping downward movement.

It will be apparent that I entirely avoid the necessity of forming the usual bolt-holes in the web of the rails, and thus preserve the strength of the rail-sections and insure a firm and reliable joint between their meeting ends.

I claim—

1. The combination with meeting rail-sections each having a projecting dovetail tongue and a dovetail recess, the tongue of each rail fitting the recess in the other rail.

2. A railway-rail section having its head formed with a dovetail extension and its base with a dovetail recess.

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

JAMES B. McCUNE.

Witnesses:

D. N. KEAST,  
W. K. HUGUS.