

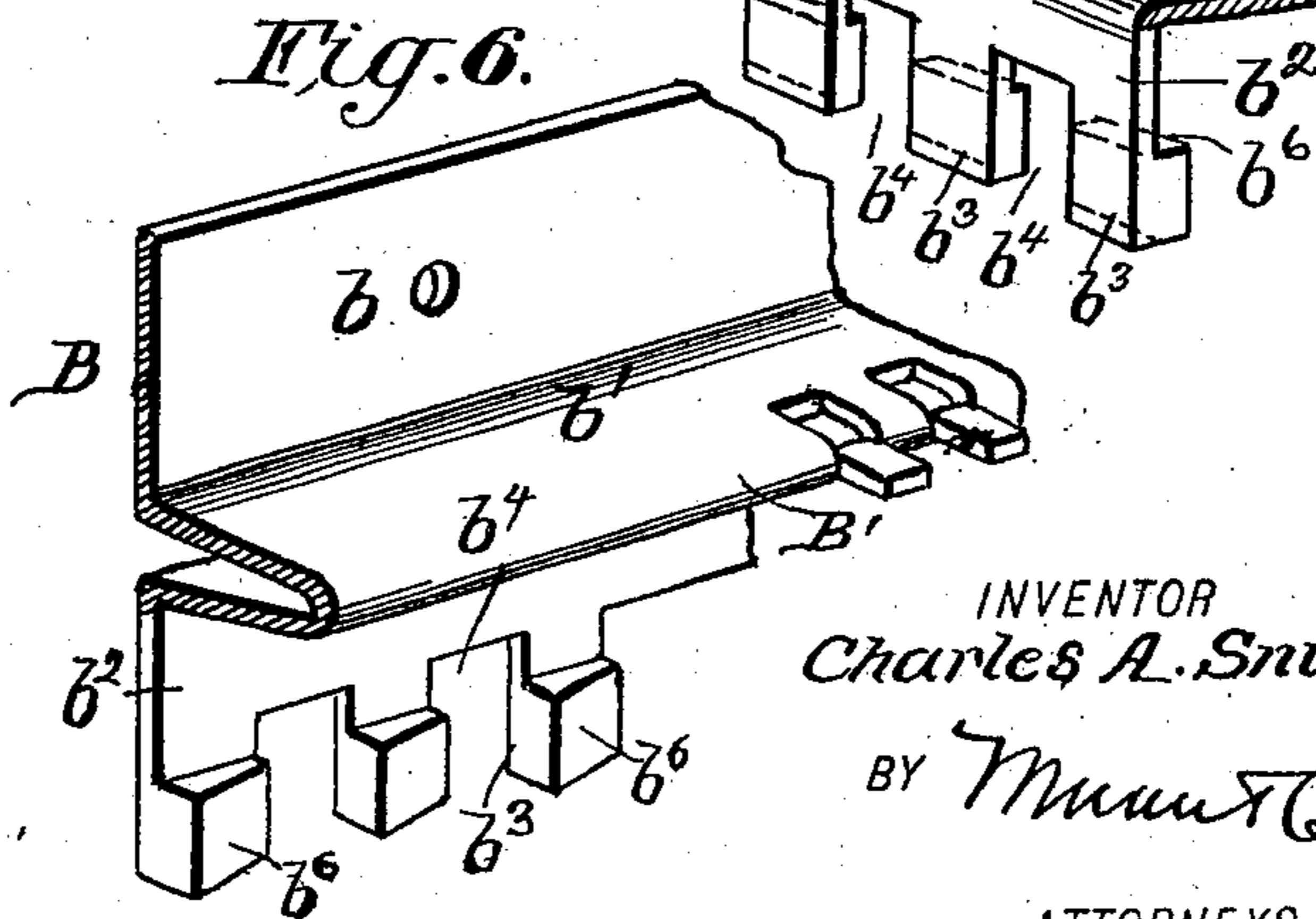
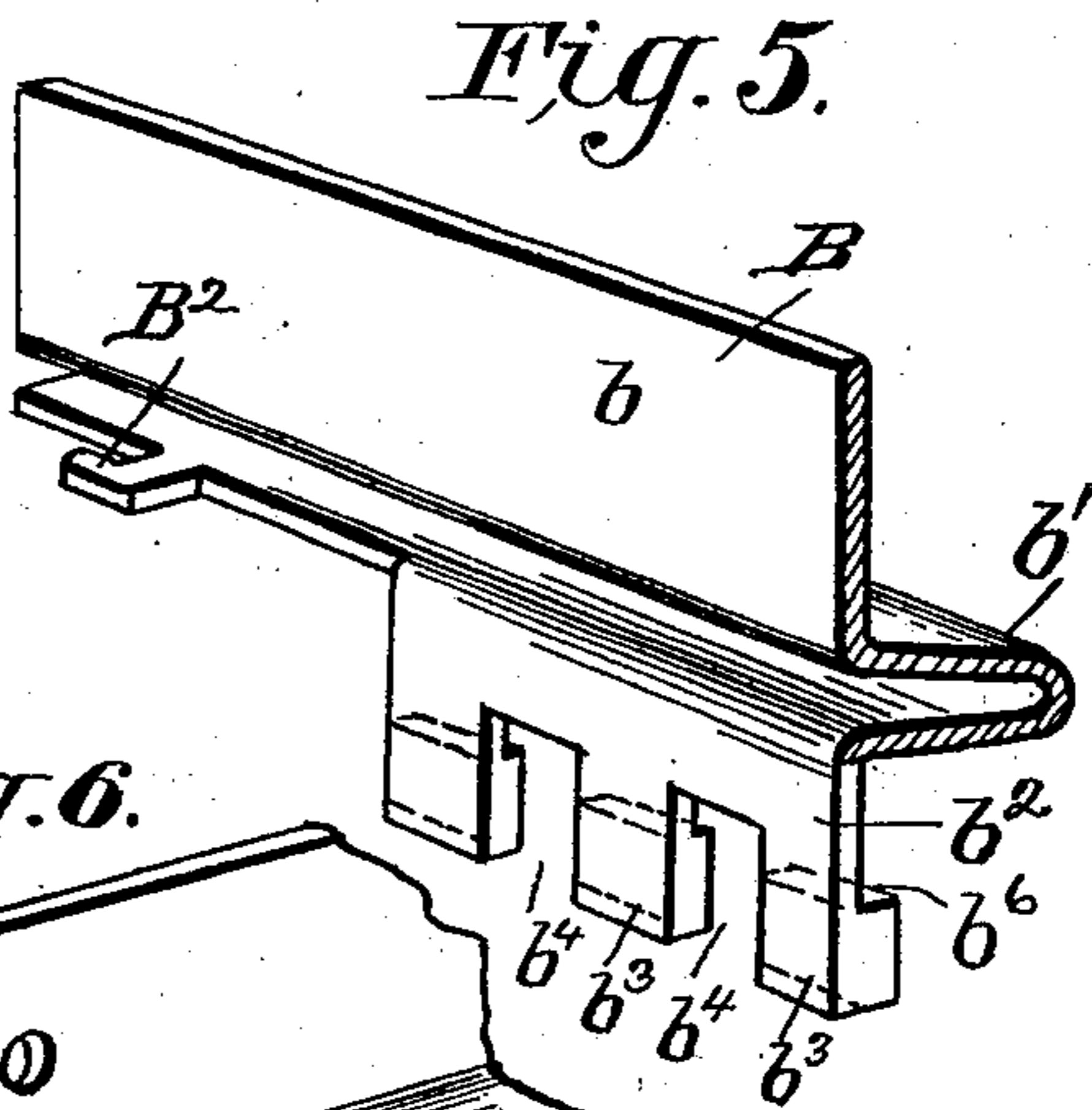
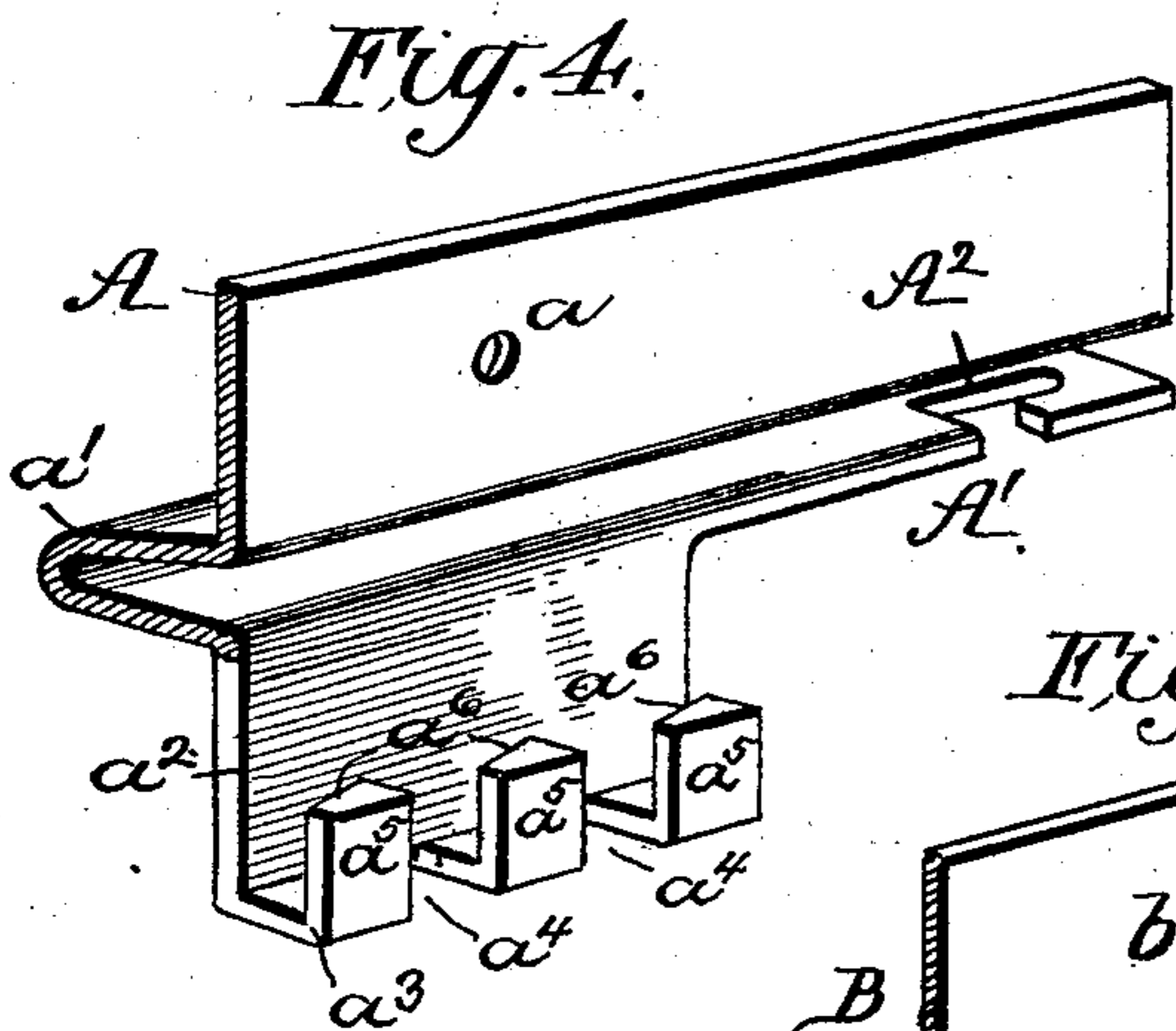
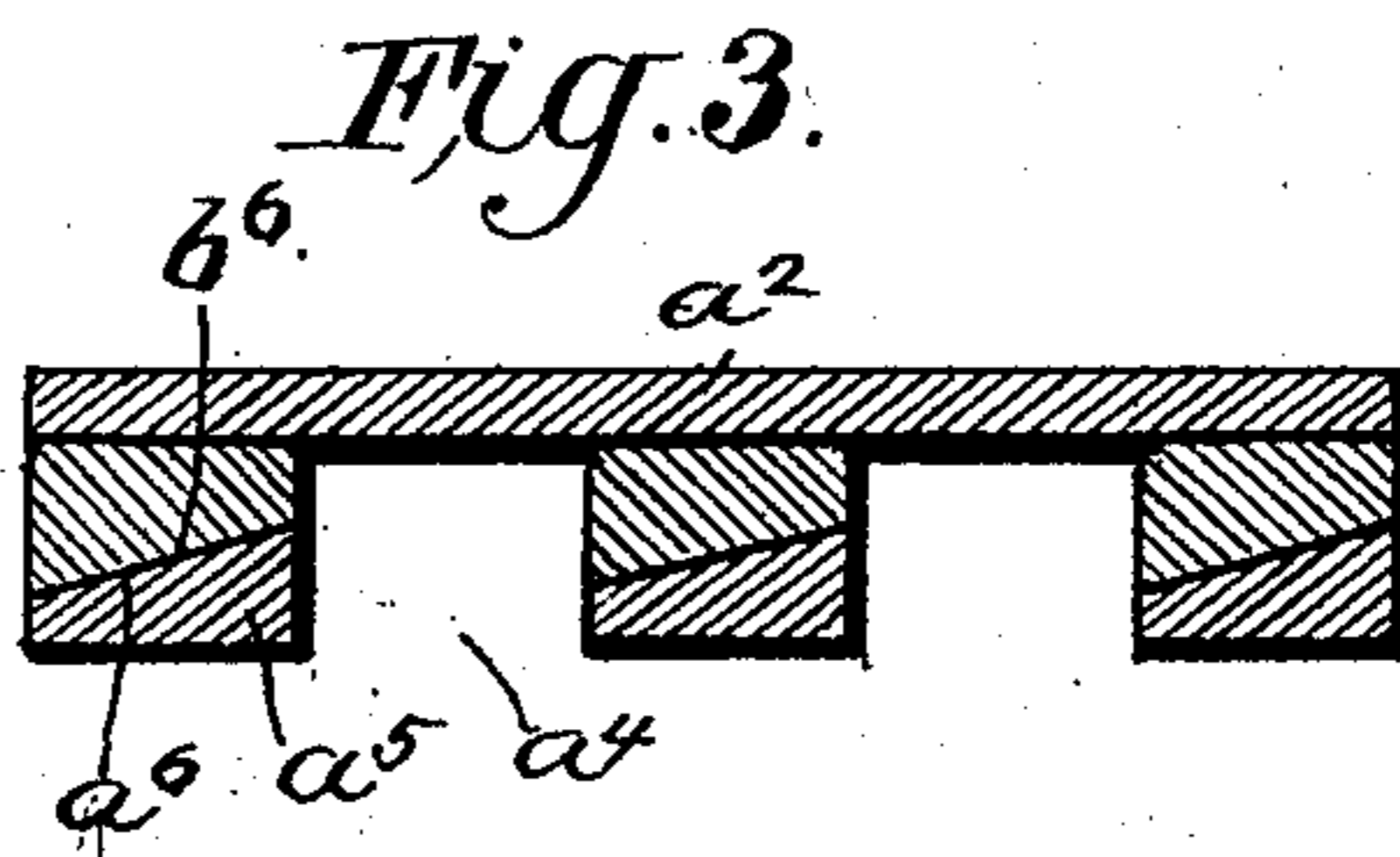
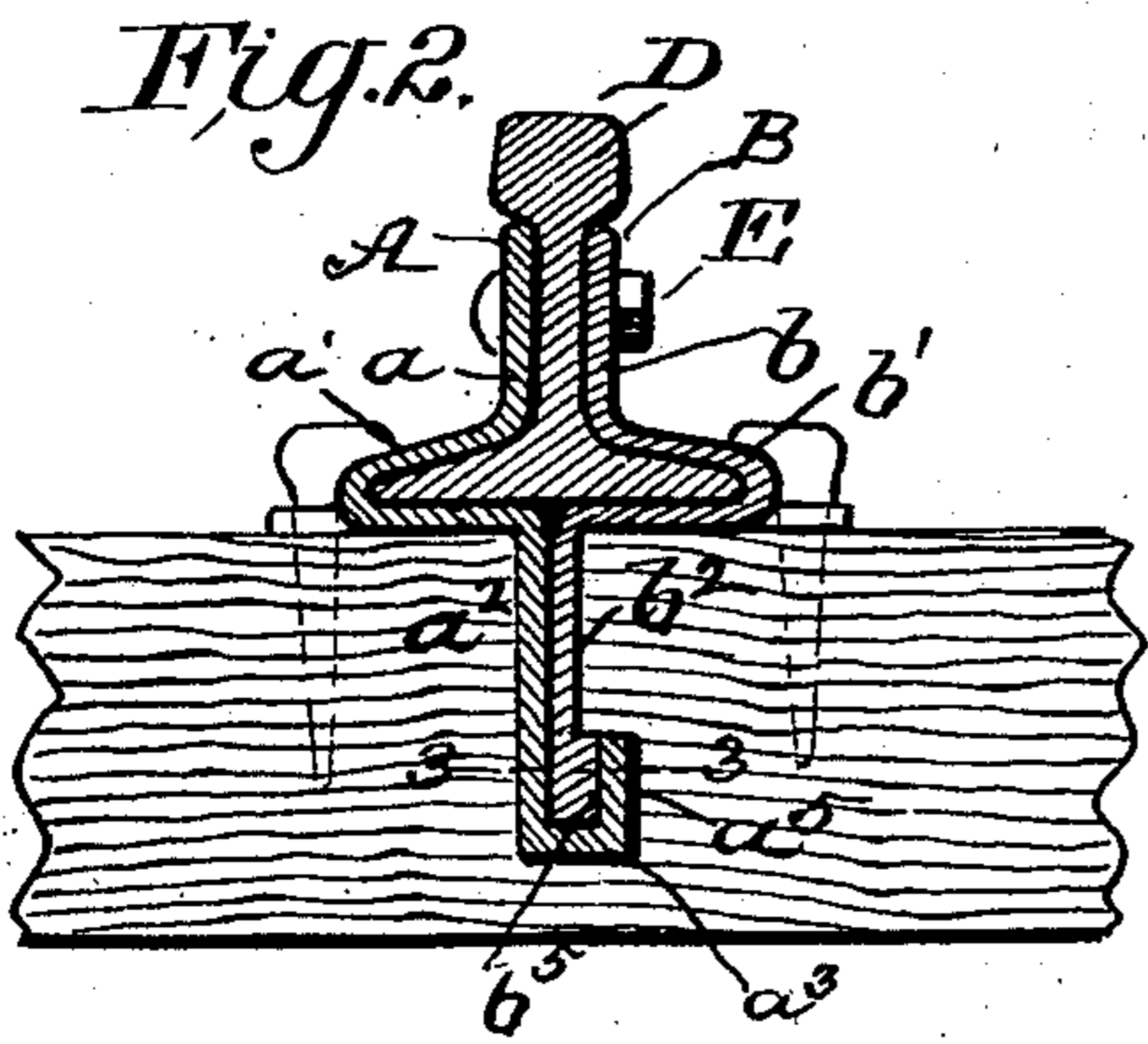
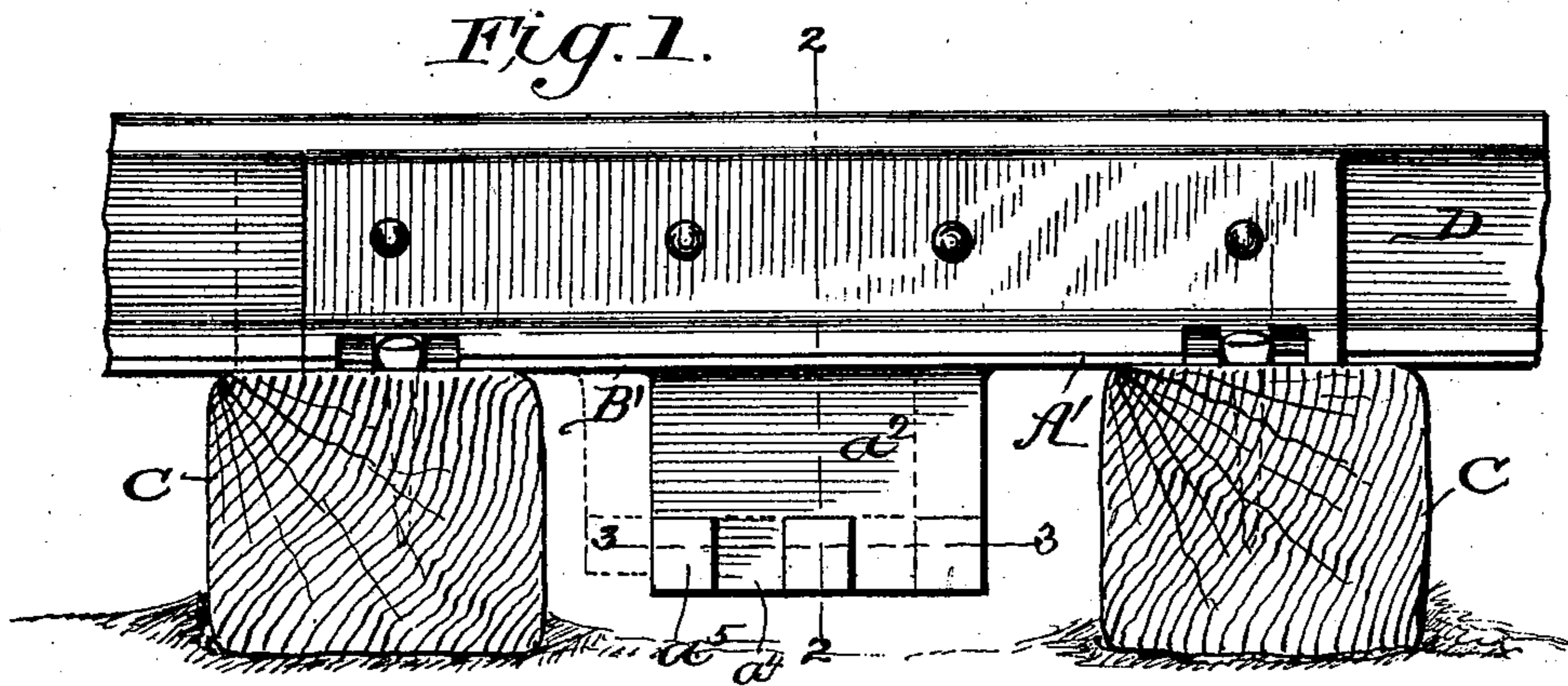
No. 720,498.

PATENTED FEB. 10, 1903.

C. A. SNIDER.  
RAIL JOINT.

APPLICATION FILED JULY 30, 1902.

NO MODEL.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

CHARLES ALBERT SNIDER, OF NEW YORK, N. Y., ASSIGNOR OF ONE-HALF  
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## RAIL-JOINT.

SPECIFICATION forming part of Letters Patent No. 720,498, dated February 10, 1903.

Application filed July 30, 1902. Serial No. 117,661. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES ALBERT SNIDER, a citizen of the United States, residing at New York, in the county of New York and State of New York, have made certain new and useful Improvements in Rail-Joints, of which the following is a specification.

My invention is an improvement in rail-joints, and has for an object to provide a simple novel construction whereby the rails will be securely united at their juncture and in which the joint-sections will be clamped together by a wedging action.

The invention has for further objects other improvements; and it consists in certain novel constructions and combinations of parts, as will be hereinafter described and claimed.

In the drawings, Figure 1 is a side elevation of my rail-joint as in use. Fig. 2 is a cross-section thereof on about line 2 2 of Fig. 1. Fig. 3 is a horizontal section on about line 3 3 of Fig. 1. Fig. 4 is a detail perspective view of the inner side of one of the joint-sections, partly broken away in section. Fig. 5 is a detail perspective view of the inner side of the other joint-section, partly broken away; and Fig. 6 is a detail perspective view of the outer side of the joint-section shown in Fig. 5, partly broken away.

In carrying out my invention I form the rail-joint of two sections A and B, which are provided at their ends with projecting portions A' and B', which rest upon the adjacent ties C. For convenience of reference the section A will be referred to as the "main" section and the section B as the "opposite" section, said sections A and B being provided between their ends with depending portions which interlock with each other by a wedging action.

The section A is provided with the upright wing  $a$  to rest in the hollow of the rail D, the outwardly-projecting portion  $a'$  to fit over the edge of the base of the rail, and the depending portion  $a^2$ , which is provided at its lower end with the returned portion  $a^3$  in the form of separated tongues, of which I show three, notches or spaces  $a^4$  being provided be-

tween the adjacent tongues  $a^3$  of the returned portion, as best shown in Fig. 4. The upright portions  $a^5$  of the returned portions are preferably sloped on their inner edges at  $a^6$ , so they will operate with a wedging action on the tongues of the opposite section B when the parts are fitted together, as shown in Figs. 1, 2, and 3. I provide the base-plate of the outwardly-projecting portion  $a'$  of the main section A with slots  $A^2$ , which are engaged by hooks  $B^2$  on the section B, the said hooks  $B^2$  being preferably arranged at the ends of the base-plate immediately below the rail, Fig. 1, which rest upon the adjacent ties C C directly opposite and in between the lugs on which operate the spikes to secure the joint to the cross-ties.

The section B is formed with the upright portion  $b$  to fit in the hollow of the rail D, the outwardly-projecting portion  $b'$  to fit over the edge of the base of the rail, and the depending wing  $b^2$ , which is divided in its lower end  $b^4$  to provide the tongues  $b^3$ , which can be adjusted through the slots  $a^4$  of the section A into engagement with the tongues  $a^5$  and are preferably beveled on their edges  $b^6$  to cooperate with the wedge-surfaces of the tongues  $a^5$ , as will be understood from Fig. 3.

In operation the sections A and B may be slipped laterally into engagement with each other and upon the opposite sides of the rail D, with the depending tongues of the section B passing between the upwardly-projecting tongues of the section A to the position indicated in dotted lines in Fig. 1, and the section B be then moved longitudinally from said dotted-line position to the full-line position shown in Fig. 1. In thus adjusting the parts the wedges of the sections will engage with each other and will operate to press the sections A and B firmly together at their lower ends, the upper portions of the joint-sections A and B being bolted together, as shown at E in Figs. 1 and 2. It will be noticed that in adjusting the section B from the dotted-line position, Fig. 1, to the full-line position in the same figure the hooks  $B^2$  will be caused to engage in the slots  $A^2$  of the section A, so that the sections A and B will be united at

their upper ends by the bolts E, at their lower ends by the interlocking tongues of the two sections, and between their upper and lower ends and immediately below the rail D by the hooks B<sup>2</sup>, as before described.

It will be noticed that I provide the sections with lugs projecting from their opposite sides and between which operate the spikes by which the joint is secured to the ties. Also, it is evident and to be understood that the joint could be used without the tongues on the two depending plates, and the hooks on the ends of the base over the cross-ties, plainly a joint without any other fastening than the bolts and spikes, a joint with the peculiar shape and form for the purpose described.

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

1. The rail-joint herein described, comprising the main section having an upright wing to fit in the hollow of the rail, an outwardly-projecting portion to fit over the outer edge of the rail-base, and having said portion provided with slots for engagement by the connecting-hooks on the opposite section and a depending portion having upwardly-projecting tongues spaced apart and arranged for engagement by the tongues on the opposite section, the opposite section having an upper wing to fit in the hollow of the rail, an outwardly-projecting portion to fit over the edge of the rail-base, hooks projecting inwardly from said portion to engage in the slots of the main section and depending tongues spaced apart and arranged to engage with the upwardly-projecting tongues of the main section, substantially as set forth.

2. A rail-joint comprising the two cooperating sections each having portions to fit in the hollow of the rail and over the outer edges of the rail and provided with depending portions one of which has upwardly-projecting tongues and the other of which has depending tongues to engage with the tongues of the other section, and hooks on one of the sections for engagement with the other section between the upper and lower ends of the joint, substantially as set forth.

3. A rail-joint comprising the two opposite sections having at their ends extensions to rest on the adjacent ties, and having between their ends depending interlocking portions operating between the adjacent ties, substantially as set forth.

4. A rail-joint comprising two opposite sections adapted to fit at their ends on adjacent ties and provided near said ends with a hook on one section interlocking with the other, and

having between their ends depending portions interlocking with each other.

5. The combination in a rail-joint, of the opposite sections having portions to fit over the opposite edges of the rail-base and having longitudinally-extending hooks for connecting the opposite sections below the rail, substantially as set forth.

6. The combination in a rail-joint, of the opposite sections formed to fit the opposite sides of the rails, bolts for connecting said sections near their upper ends, hooks connecting said sections below and adjacent to the under sides of the rails, and depending portions having at their lower ends interlocking tongues by which to unite the sections at their lower ends substantially as set forth.

7. A rail-joint comprising two cooperating sections, adapted to fit on opposite sides of the rails, and provided with extending portions, one having upwardly-projecting spaced-apart tongues and the other having depending spaced-apart tongues arranged to cooperate with the said upwardly-projecting tongues, substantially as set forth.

8. A rail-joint comprising two cooperating sections formed to fit on opposite sides of the rails and provided with flat end portions, extensions to rest on the adjacent ties, and having intermediate depending portions one of which is provided with returned upwardly-projecting tongues, and the other of which has depending tongues engaging with the upwardly-projecting tongues of the first section, substantially as set forth.

9. A rail-joint having the flat end extensions and the longitudinally-extending hooks connecting the same and provided between said extensions and hooks with interlocking devices substantially as set forth.

10. The combination in a rail-joint, with the section having upwardly-projecting spaced-apart portions, of the other section having depending spaced-apart tongues to engage the upwardly-projecting portions, wedge-surfaces being provided between the said engaging parts, substantially as set forth.

11. The combination of the joint-section having a depending portion provided with upwardly-projecting tongues spaced apart and inclined on their inner faces, and the section having depending tongues inclined on their outer surfaces and arranged at said points to engage with the inner faces of the upwardly-projecting tongues, substantially as set forth.

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Witnesses:

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E. M. SEABROOK.