

No. 754,727.

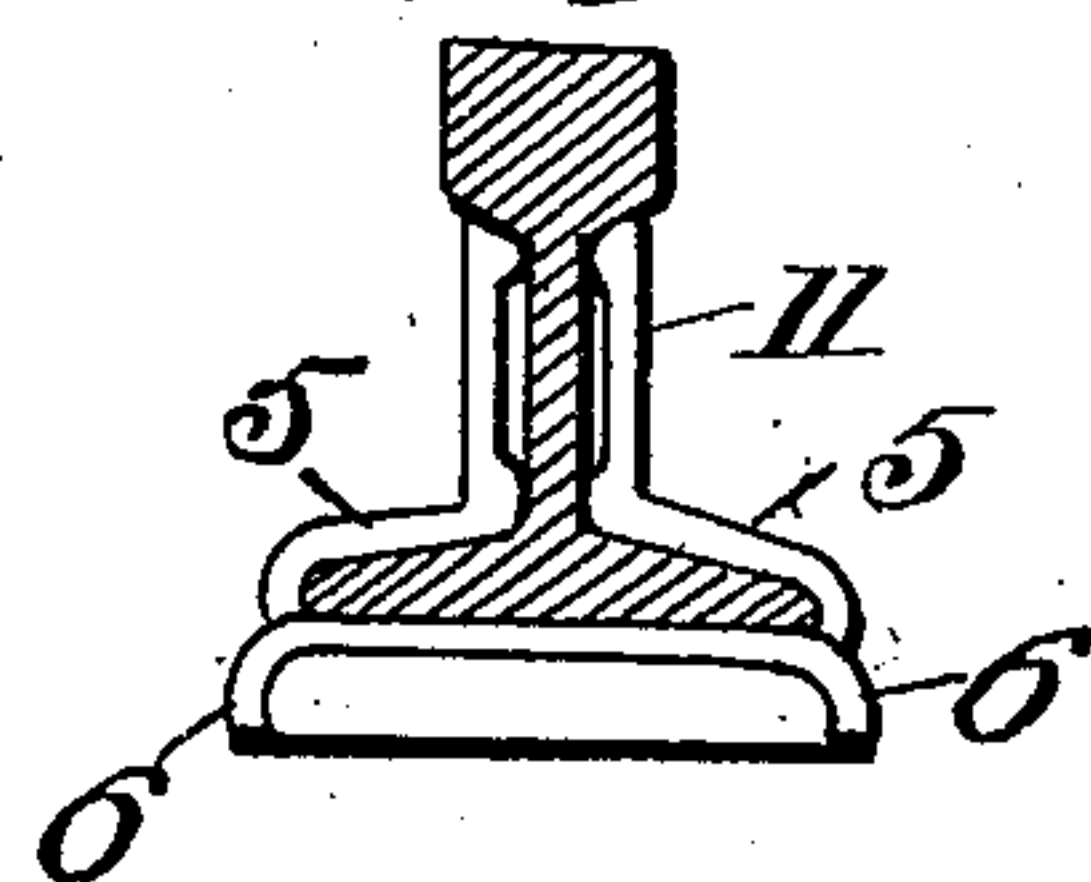
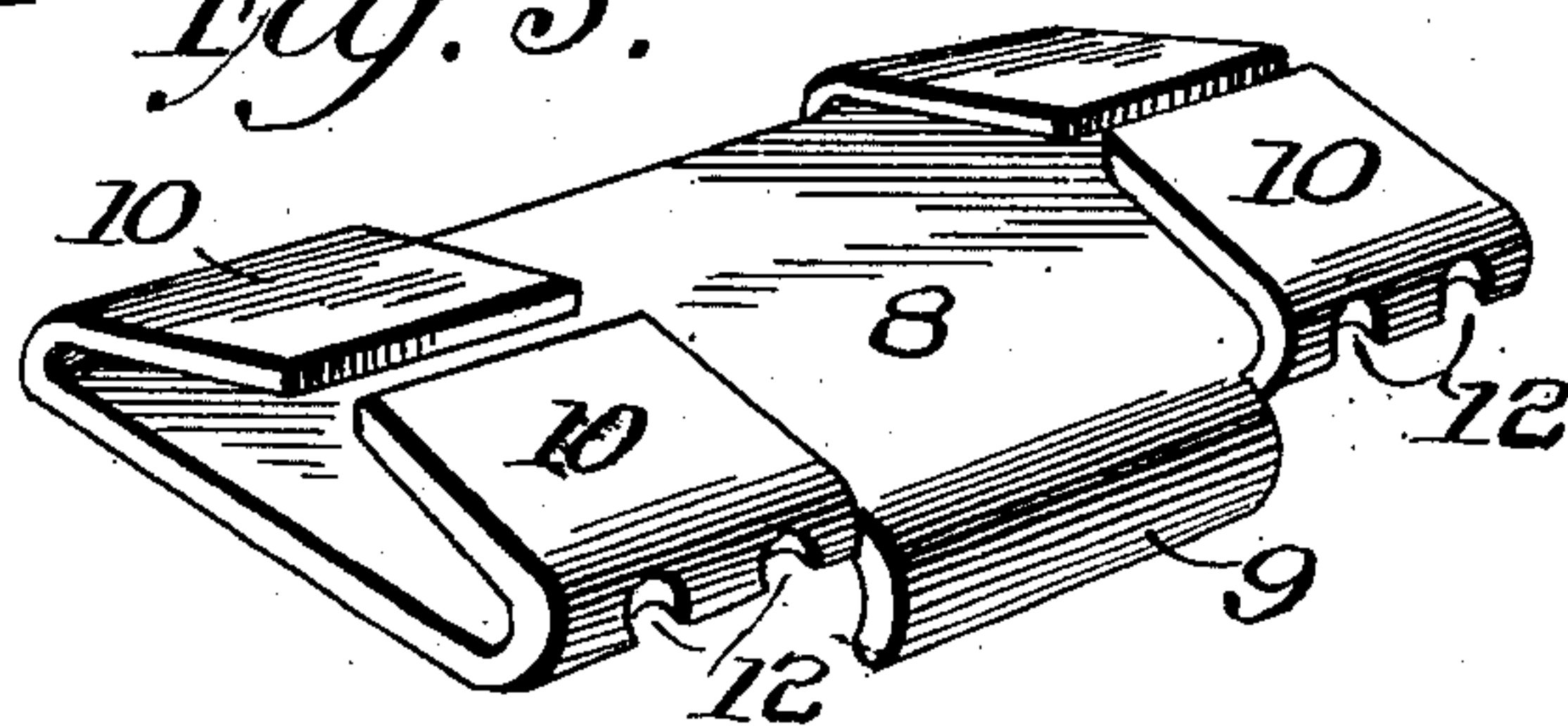
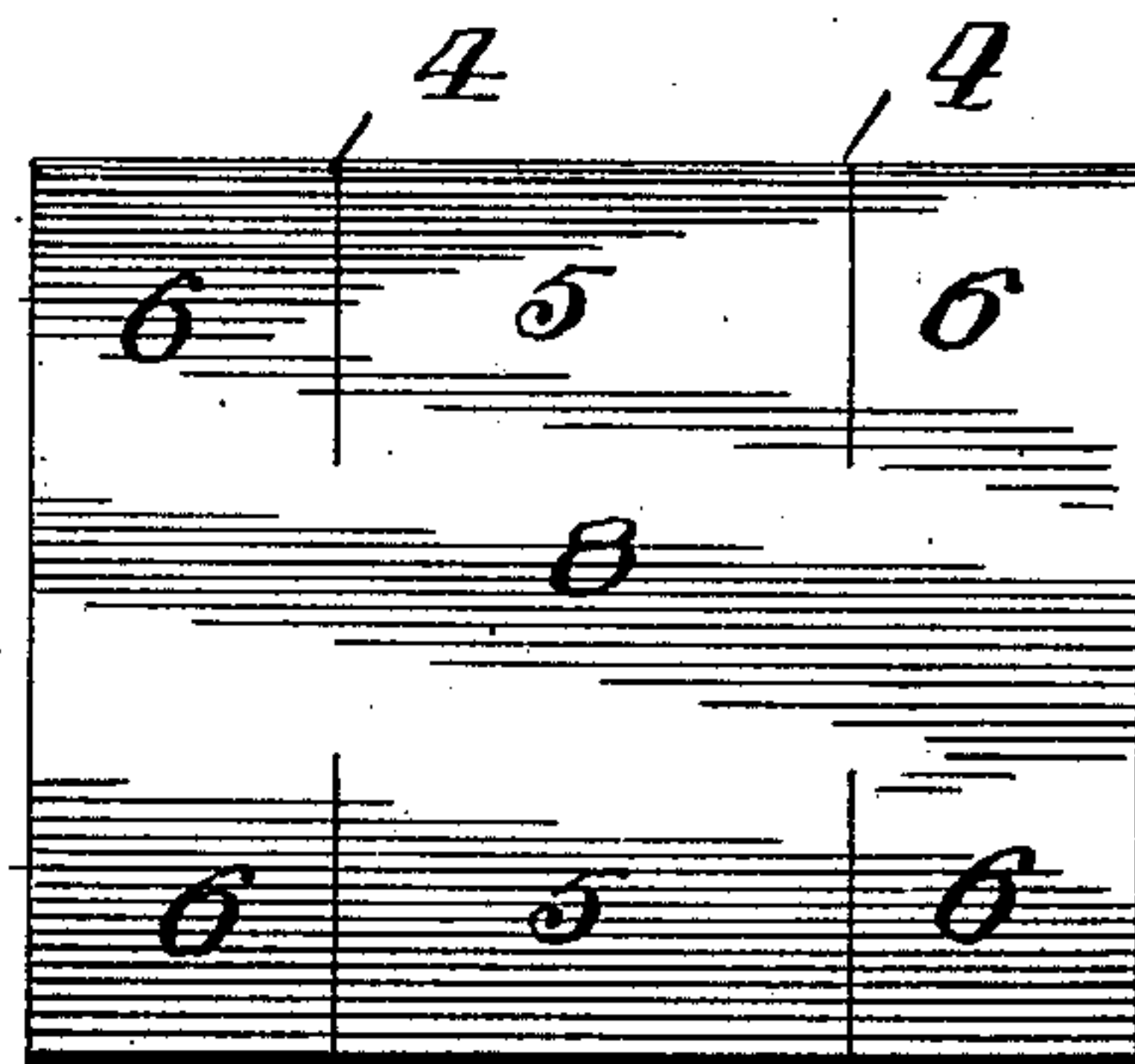
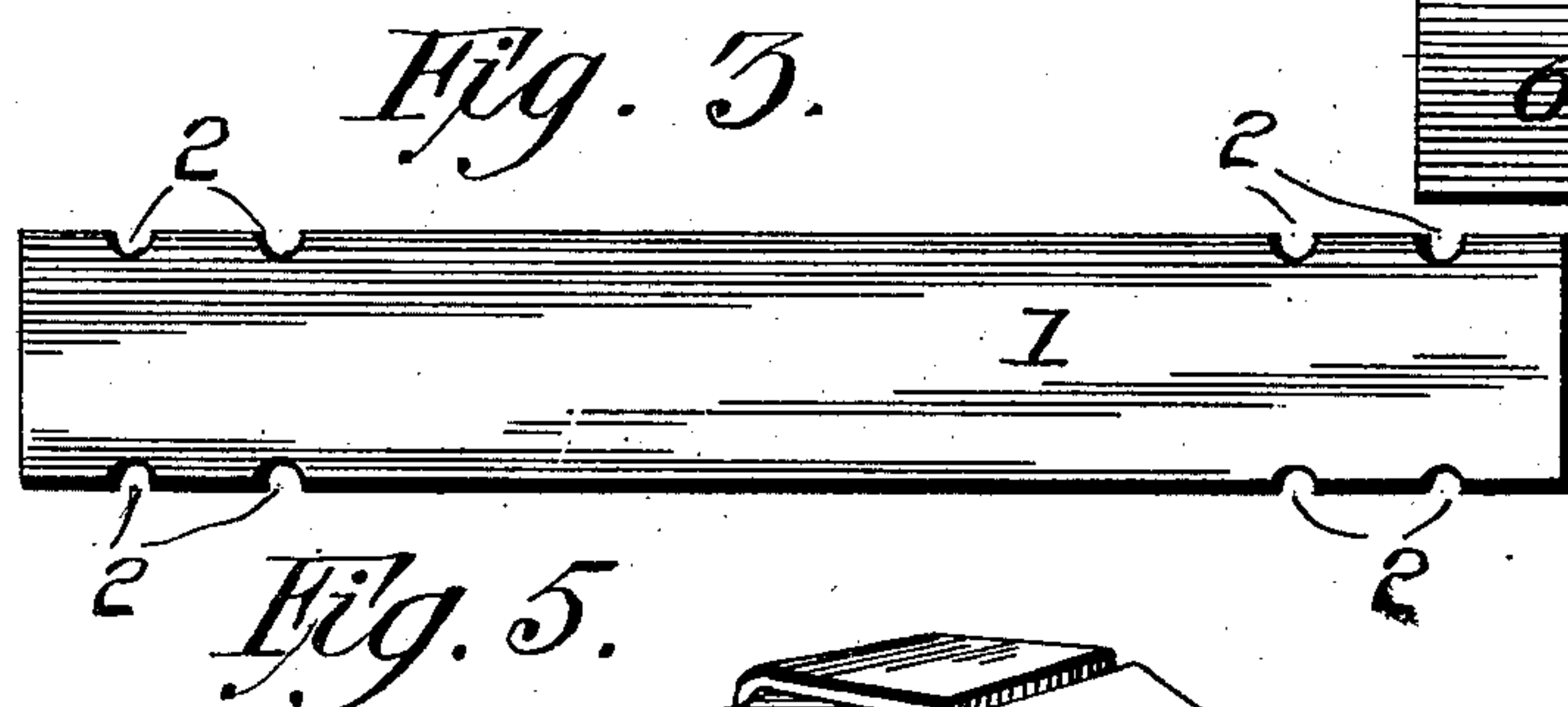
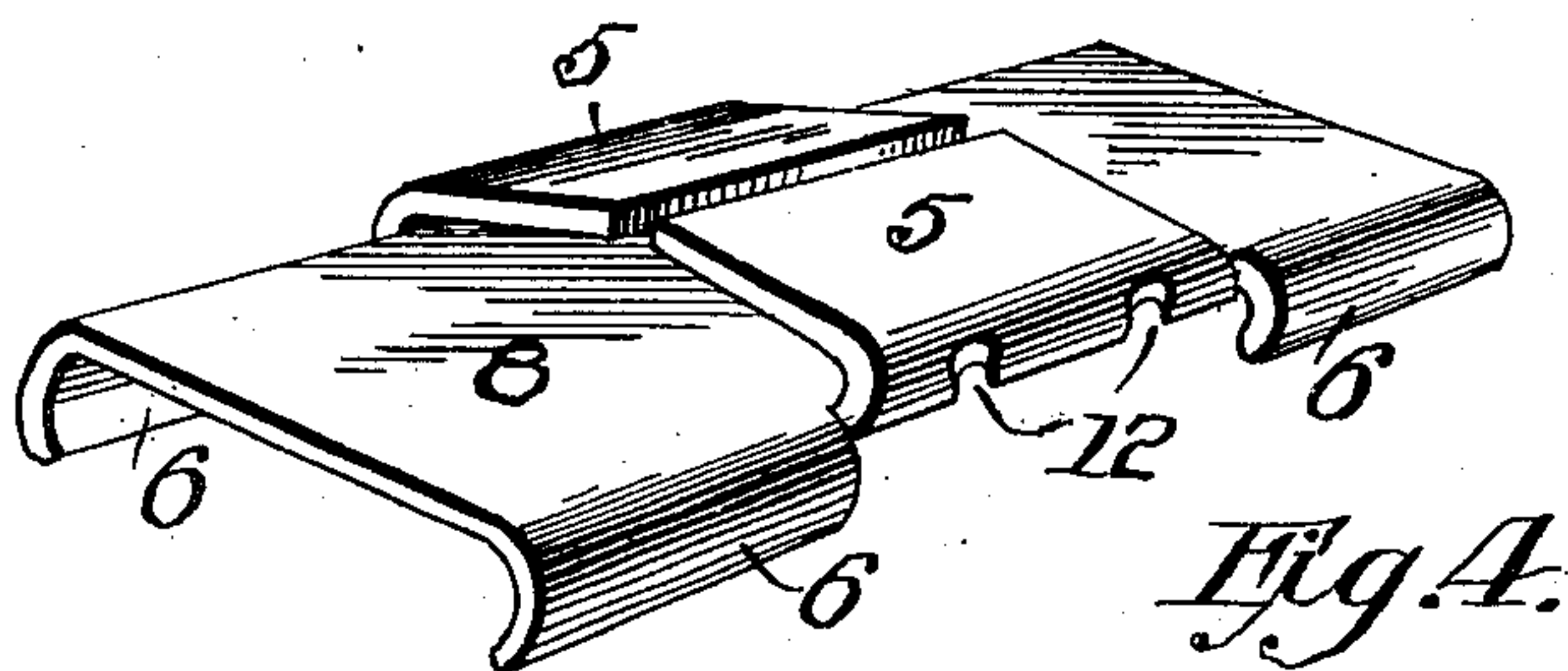
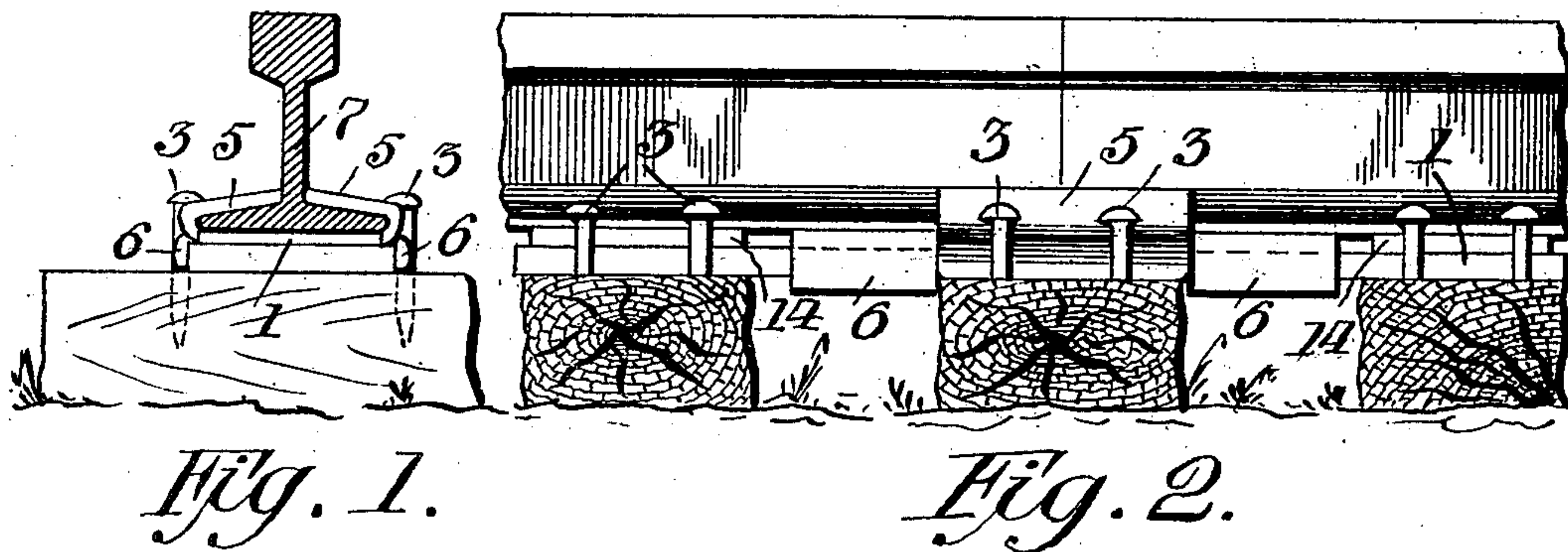
PATENTED MAR. 15, 1904.

W. WATKINS.

RAIL JOINT.

APPLICATION FILED DEC. 5, 1903.

NO MODEL.



Witnesses:
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UNITED STATES PATENT OFFICE.

WILLIAM WATKINS, OF MONESSEN, PENNSYLVANIA.

RAIL-JOINT.

SPECIFICATION forming part of Letters Patent No. 754,727, dated March 15, 1904.

Application filed December 5, 1903. Serial No. 183,868. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM WATKINS, a citizen of the United States of America, residing at Monessen, in the county of Westmoreland and State of Pennsylvania, have invented certain new and useful Improvements in Rail-Joints, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to certain new and useful improvements in rail-joints; and the invention has for its object the provision of novel and efficient means for the secure holding of the rails at the joint thereof without the aid of the ordinary fish-plates and bolts.

Briefly described, the invention comprises a rail-chair embodying a base provided with downwardly and inwardly projecting flanges which are adapted to embrace the elongated saddle-plate placed on the cross-ties, the said base having upwardly and inwardly projecting clamp-plates adapted to engage the upper face of the rail-base, or these clamp-plates may be made so as to embrace both the rail-base and the rail-web.

In describing the invention in detail reference is had to the accompanying drawings, forming a part of this application, and wherein like numerals of reference indicate like parts throughout the several views, in which—

Figure 1 is a transverse vertical sectional view of a rail, showing my improved rail-chair in end elevation. Fig. 2 is a side elevation of the rail-joint constructed in accordance with my invention. Fig. 3 is a detached detail perspective view of the rail-chair in its preferred form of construction. Fig. 4 is a top plan view of the blank from which the rail-chair is constructed. Fig. 5 is a plan view of the elongated saddle-plate. Fig. 6 is a plan view of the rest-plate. Fig. 7 is a detached detail perspective view of a modified form of construction of rail-chair. Fig. 8 is an end elevation of another modification, showing the rail in cross-section.

To put my invention into practice, I provide a saddle-plate 1, which is of a width approximately the same as the rail-base or slightly

wider and is generally of a length sufficient to span two or more of the cross-ties and is provided with notches 2 at the edges adjacent its ends to receive the shanks of the securing-spikes 3. In connection with this saddle-plate 1 I employ a rail-chair, generally formed from a blank, as seen in Fig. 4, and which is provided with parallel slits 4 in its side edges, and the material between these slits is struck up to form clamp-plates 5. The edges of the plate between the slits 4 are bent downwardly to form the flanges 6, which are adapted to embrace the edges of the saddle-plate 1, the rail 7 being adapted to rest on the base-plate 8 of the rail-chair. Instead of forming the plate as above described I may bend down the portions of the same between the slits 4 to form flanges 9 and bend up the portion beyond the slits to form the clamp-plates 10, as seen in Fig. 7, or I may shape the portion between the slits 4 to form fish-plates 11 in addition to the clamp-plates 5, as seen in Fig. 8. Where the rail-chair is constructed as seen in Fig. 3, the edges of the clamp-plates 5 may have notches 12 to receive the securing-spikes 3, and where the plate is constructed as seen in Fig. 7 the notches 12 will be provided in the edges of the clamp-plates 10. In order to give a longer bearing for the rails at the joint, I preferably employ the auxiliary saddle-plate 14, which is placed underneath the rail-base beyond the ends of the chair-plate, as seen in Fig. 2, and which is provided with notches 15 in the side edges to receive the securing-spikes 3.

In the practice of the invention it will be noted that various changes may be made in the details of construction without departing from the general spirit of my invention.

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

1. A rail-joint comprising in combination with a saddle-plate, a rail-chair having portions thereof bent upwardly to embrace the rails and portions bent downwardly to embrace the side edges of said plate, said plate and upwardly-bent portions of the chair having spike-notches therein, said plate and chair being

spiked to the cross-ties, the downwardly-bent chair portions extending between the cross-ties.

5 2. A rail-joint comprising in combination with a saddle-plate, a rail-chair having portions embracing the plate and the rail, with the rail-embracing portions spiked to the cross-ties, and auxiliary saddle-plates seating on said

saddle-plate and simultaneously spiked therewith to the cross-ties.

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

WILLIAM WATKINS.

Witnesses:

CHAS. KEPPLE,

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