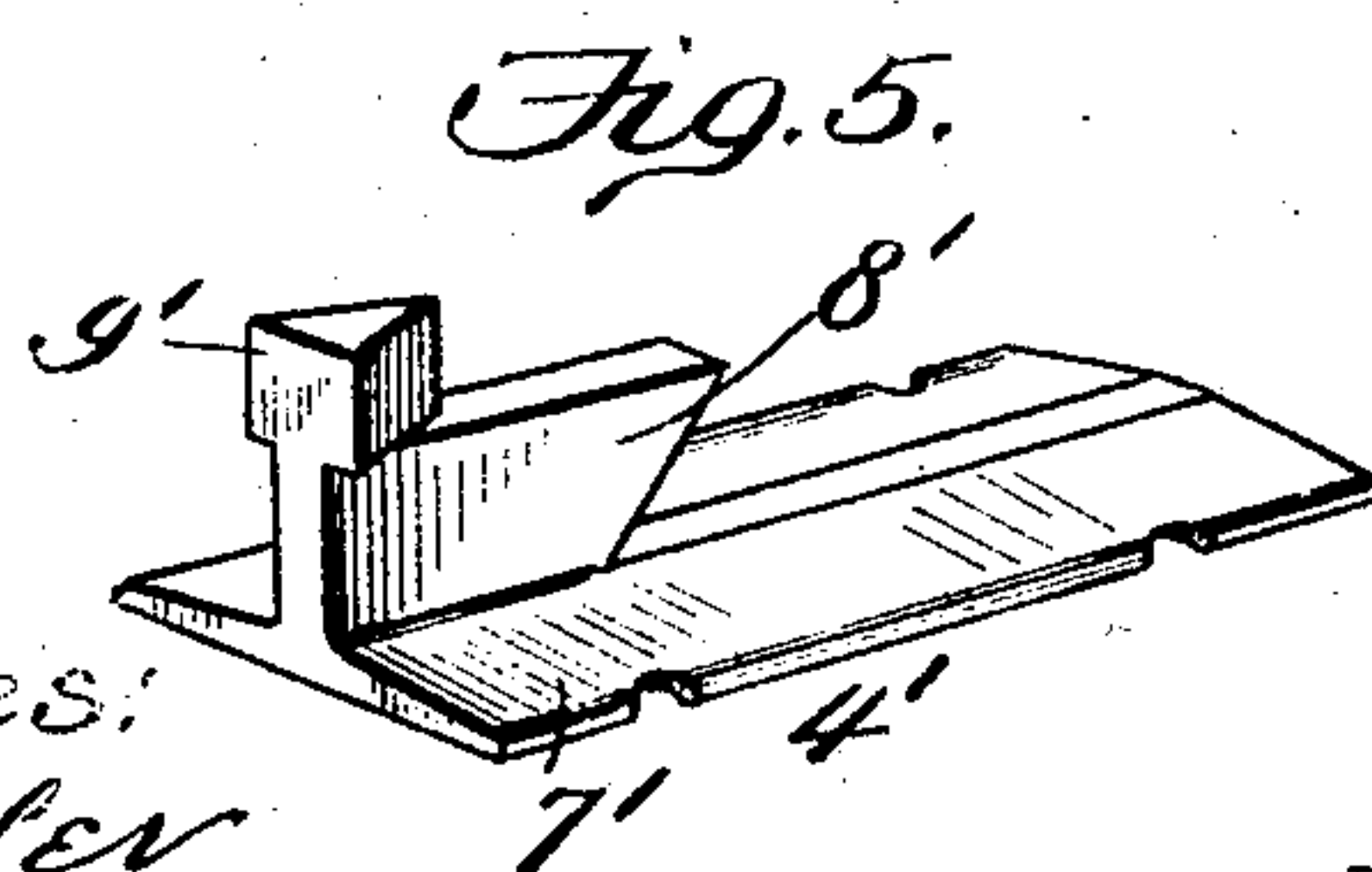
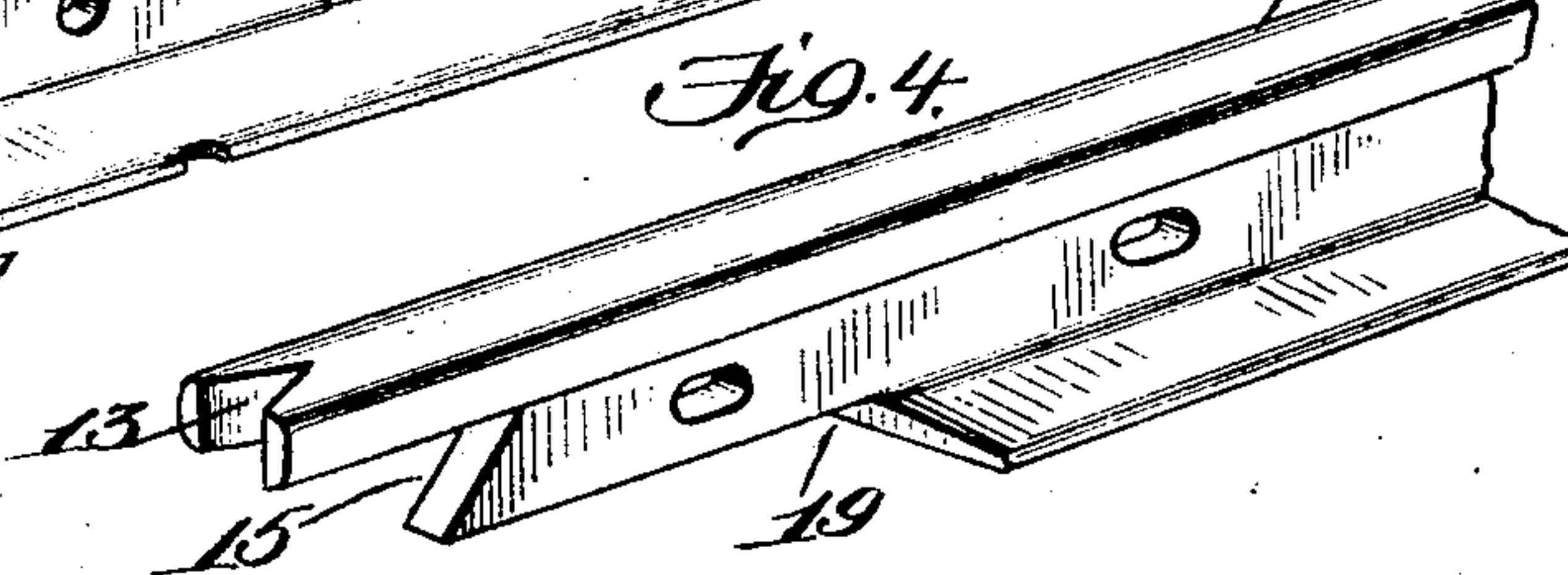
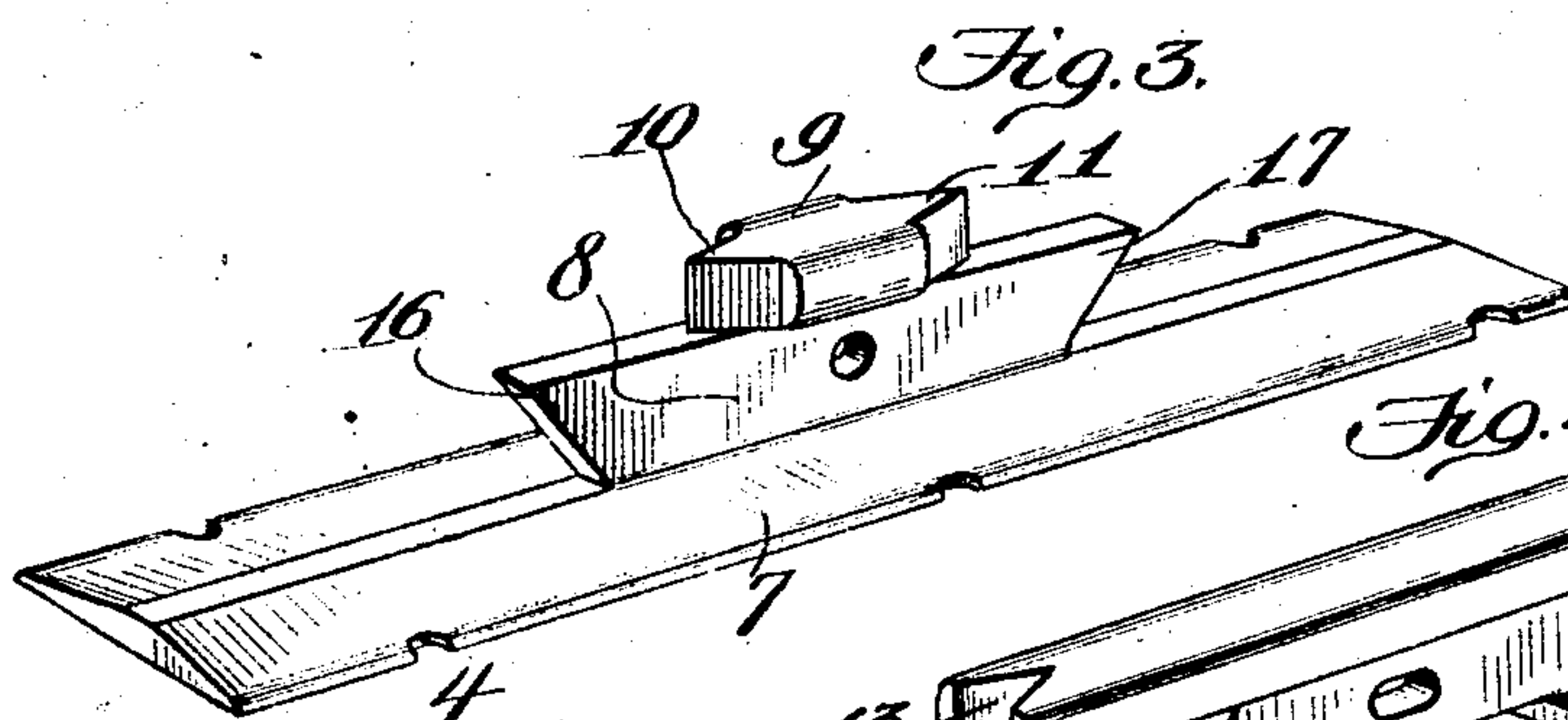
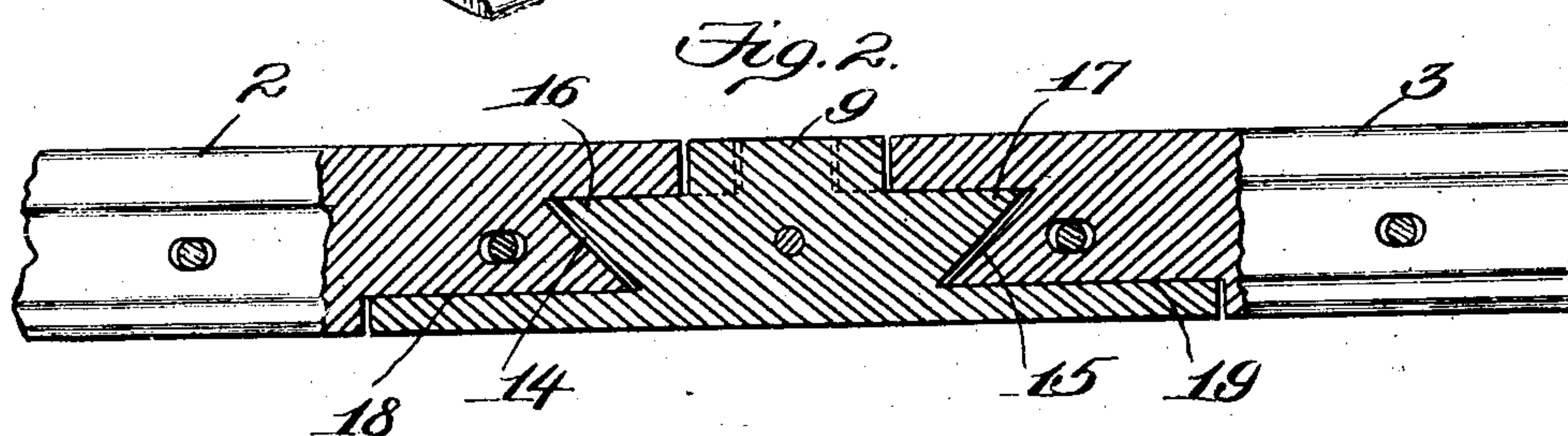
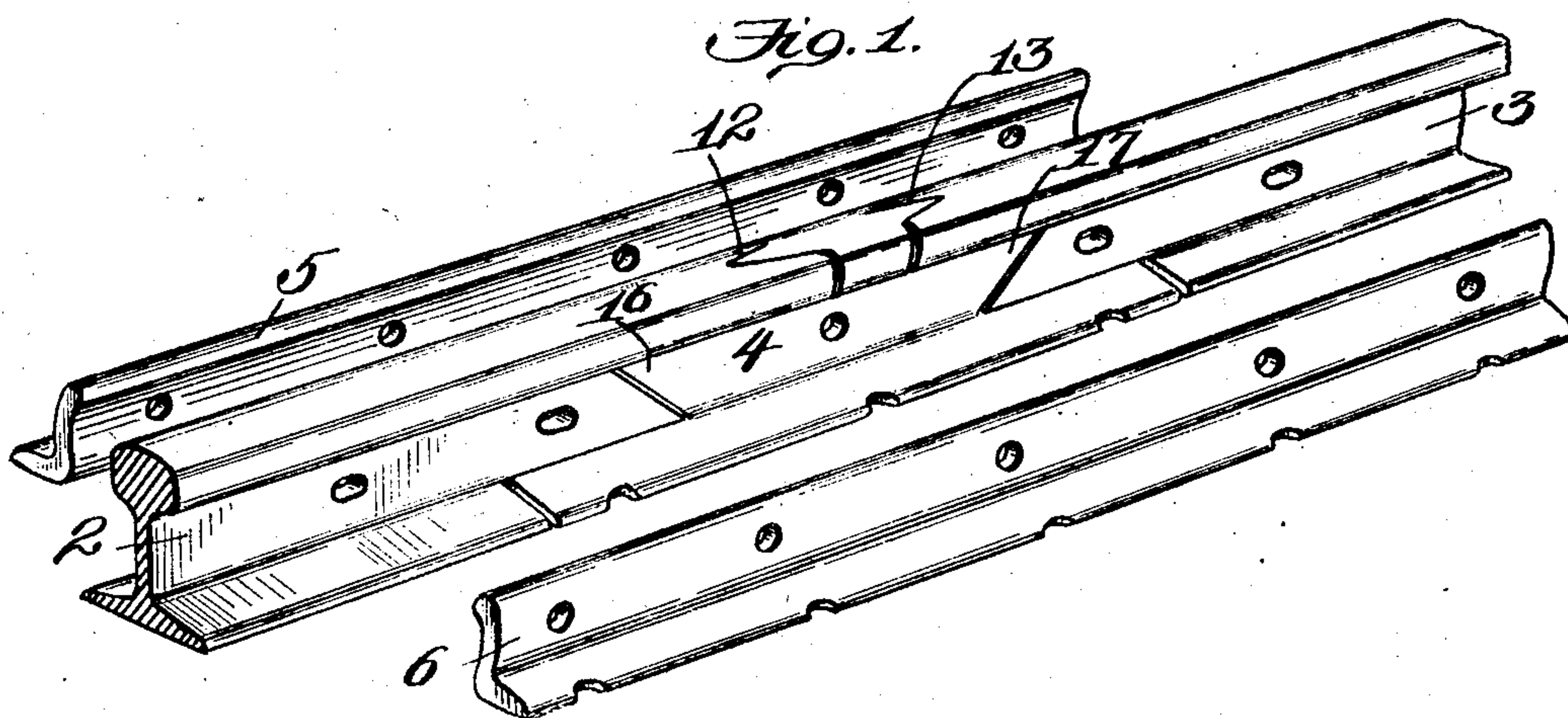


No. 880,384.

PATENTED FEB. 25, 1908.

W. H. LEWIS.
RAILWAY RAIL JOINT.
APPLICATION FILED JUNE 7, 1907.



Witnesses:
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By
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UNITED STATES PATENT OFFICE.

WALTER H. LEWIS, OF MADISON, MISSISSIPPI.

RAILWAY-RAIL JOINT.

No. 880,384.

Specification of Letters Patent.

Patented Feb. 25, 1908.

Application filed June 7, 1907. Serial No. 377,827.

To all whom it may concern:

Be it known that I, WALTER H. LEWIS, a citizen of the United States, residing at Madison, in the county of Madison and State of Mississippi, have invented new and useful Improvements in Railway-Rail Joints, of which the following is a specification.

This invention relates to railway rail joints, the object of the invention being to provide a simple article of this character which can be inexpensively and readily made and which in use effectually prevents upward, downward, and lateral movement of the rails with which the same is associated.

In the drawings accompanying and forming a part of this specification I show in detail certain advantageous forms of embodiment of the invention, which, to enable those skilled in the art to practice the same, will be set forth in detail in the following description, while the novelty of the invention will be included in the claims succeeding said description.

Referring to said drawings: Figure 1 is a perspective view of a rail joint involving my invention, the fish-plates shown in said figure being laterally separated from the rails and intermediate splicing member. Fig. 2 is a sectional side elevation of the parts shown in Fig. 1. Fig. 3 is a detail view in perspective of the said splicing member. Fig. 4 is a similar view of the end portion of a rail. Fig. 5 is a like view of a modified form of splicing member.

Like characters refer to like parts throughout the several figures of the drawings.

In Figs. 1 and 2 of the drawings I have shown two rails 2 and 3 which are not of the ordinary construction, as will hereinafter appear, a splicing member, such as that denoted in a general way by 4, and two fish-plates as 5 and 6, the latter being of the ordinary construction. The several parts just alluded to may be made from the material usually employed in the formation of rails and joints therefor.

The splicing member 4 includes in its construction a base or foot as 7 which as to cross-sectional shape, will correspond substantially with that of the bases of the said rails 2 and 3. There is shown as rising from said base a web or flange 8 which is surmounted by the head or crown-piece 9, the width of which exceeds that of the said web or flange 8 and is equal approximately to that of the heads of the two rails. The head

9 is shown as having at its opposite ends similar projections as 10 and 11 of angular form, which are adapted to snugly fit correspondingly shaped notches as 12 and 13, respectively, in the adjacent ends of the two rails. The ends of said head 9 at opposite sides of the two V-shaped projections 10 and 11 are squared off to solidly or substantially solidly abut against the similarly-formed ends of the two rails at opposite sides of the apertures or notches 12 and 13 respectively. The seating of these V-shaped projections 10 and 11 in the apertures or notches 12 and 13, respectively, when the parts of the joint are in assembled relation, prevent absolutely relative lateral motion of the two rails 2 and 3.

The end portions of the rails 2 and 3 have notches as 14 and 15 respectively, as clearly shown in Fig. 2, to receive the projections 16 and 17 respectively at the ends of the web or flange 8. Each of said notches 14 and 15 comprises an inclined face and a horizontal face, the inclined faces being located upon the webs of said rails and converging downward, while the horizontal faces are situated on the under sides of the heads of said rails. The two projections 16 and 17 closely fit these notches 14 and 15 and are shaped to correspond therewith. From this it will be evident that the downwardly-converging faces of the web 8 bear against the similarly inclined faces of the said two notches 14 and 15. The end portions of the bases of the two rails are cut away to form notches as 18 and 19 respectively, and the end portions of the base 7 are fitted in said notches 18 and 19 respectively.

The splicing member 4 is shown in assembled relation with the two rails 2 and 3 in Figs. 1 and 2 and, when this relation is present, it will be impossible for the rails to move either upward or downward or sidewise. For additional security the two fish-plates 5 and 6 are provided and they fit against the side faces of the webs of the rails and the intermediate web 8, said several webs being in a common vertical plane, as shown clearly in Fig. 1. When the rails 2 and 3 and intervening splicing member 4 are in operative relation the fish-plates 5 and 6 will be placed against the side faces of the same, although this condition is not shown, and will be held in position by the use of the customary bolts and nuts. The fish-plates in themselves form no part of the invention, so that I deem it unnecessary to show them in place, and,

as the same statement applies to the said bolts and nuts, they have not been illustrated.

There are cases where it may be necessary to connect two rails when the end of one is shaped like the rails represented in Fig. 1, and the other rail is squared off. I provide a splicing member as 4' which is adapted to such a condition. This splicing member 4' is provided with a base as 7' and a head as 9'. The head 9' is of triangular shape and its outer face is in the same vertical plane as the outer faces of the web 8' and base 7'. In fact, if the splicing member 4 were to be severed at the base, say, of the projection 11 in Fig. 3 in a vertical direction, the part of said splicing member 4 at the right of the cut would be identical with the splicing member 4'.

Both forms of the splicing member (designated by 4 in one case and 4' in the other case) have a base, a web or flange rising therefrom, and a head on the base, and in each case at least one end of said web or flange is inwardly, downwardly inclined so as to produce a beveled or angular projection to fit an under-cut recess in the end of a rail. The bases of the two splicing members may have spike-receiving notches in their side edges.

What I claim is:

1. A rail joint splicing member comprising a base, a web rising from the base, and a head surmounting the web, at least one end of the web having a downwardly and inwardly inclined face.

2. A rail joint splicing member comprising a base, a web rising from the base, and a head surmounting the web, at least one end of the web having a downwardly and inwardly inclined face, and the head having a substantially V-shaped projecting portion.

3. A rail joint splicing member comprising a base, a web rising from the base, and a head surmounting the web, the opposite ends of the web having downwardly converging inclined faces.

4. A rail joint splicing member comprising a base, a web rising from the base, and a head surmounting the web, the opposite ends of the web having downwardly converging in-

clined faces, and the head being wider than the web and being provided at its ends with substantially V-shaped projections.

5. The combination of two rails having under-cut notches provided with inclined downwardly-converging faces and a splicing member between the ends of the rails, involving a web, the ends of which are shaped to agree with that of and to fit in said notches, said web being surmounted by a head located between the ends of the rail, the head having projecting portions and the ends of the rails having notches to receive said projecting portions.

6. The combination of two rails having under-cut notches provided with inclined downwardly-converging faces, and a splicing member between the ends of the rails, involving a web, the ends of which are shaped to agree with that of and to fit in said notches, said web being surmounted by a head wider than the web, located between the ends of the rails and having at its ends two substantially V-shaped projecting portions, the ends of the rails having substantially V-shaped notches to receive said projecting portions.

7. The combination of two rails having under-cut notches provided with inclined downwardly-converging faces, the adjacent ends of the faces of said rails being cut away, and a splicing member located between the rails, said splicing member comprising a base, a web rising from the base, and a head surmounting the web, the base of the splicing member being located in said cut-away portions, the ends of the web being closely fitted in said notches, and the head being substantially the same width as and located between the ends of the heads of the rails, the head of the splicing member being provided at its ends with projecting portions, and the heads of the rails being notched to receive said projecting portions.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

WALTER H. LEWIS.

Witnesses:

HEATH SUTHERLAND.

CHAS. S. HYER.