

No. 705,827.

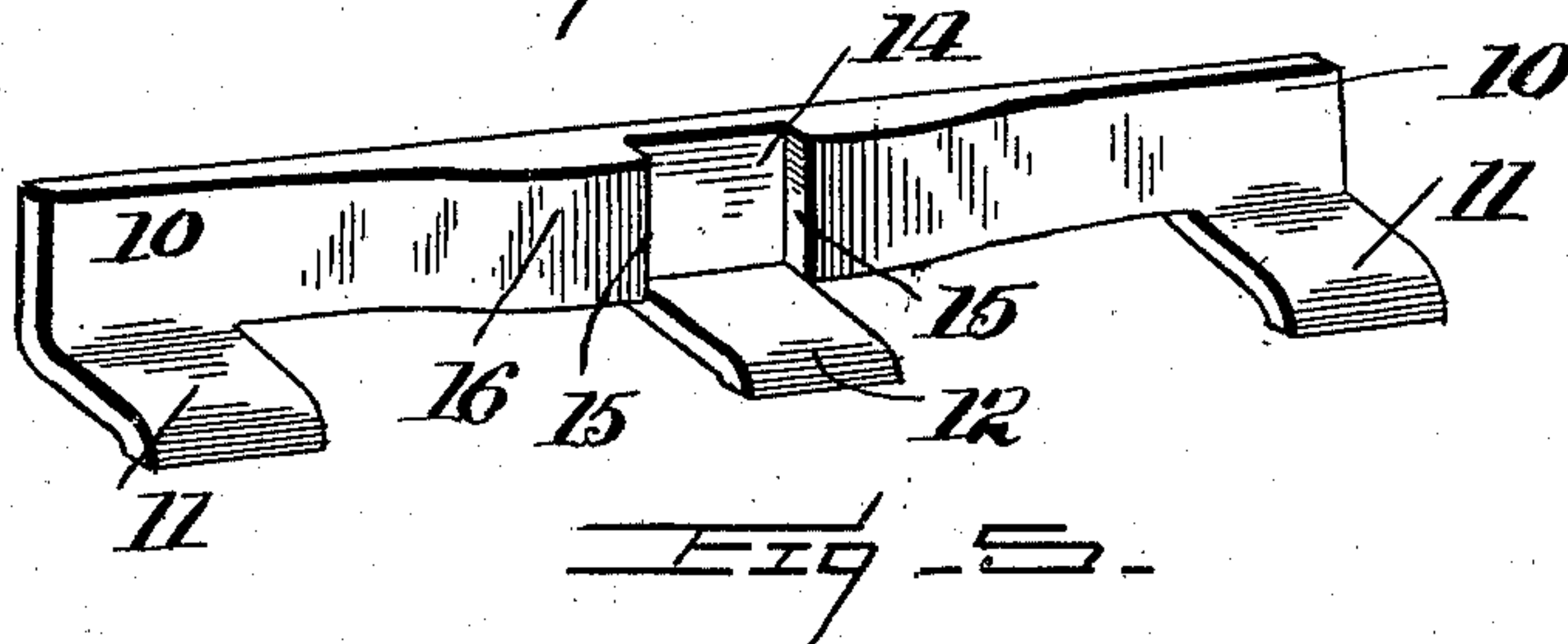
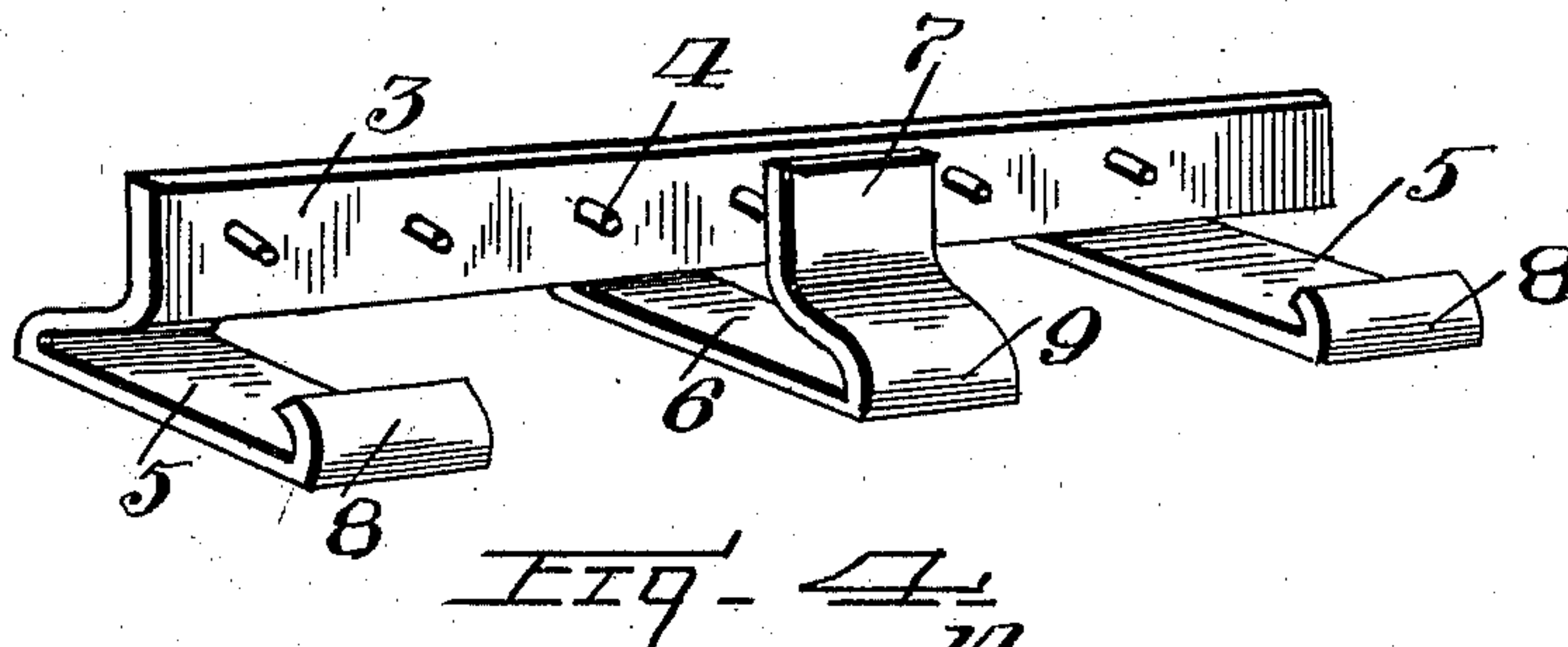
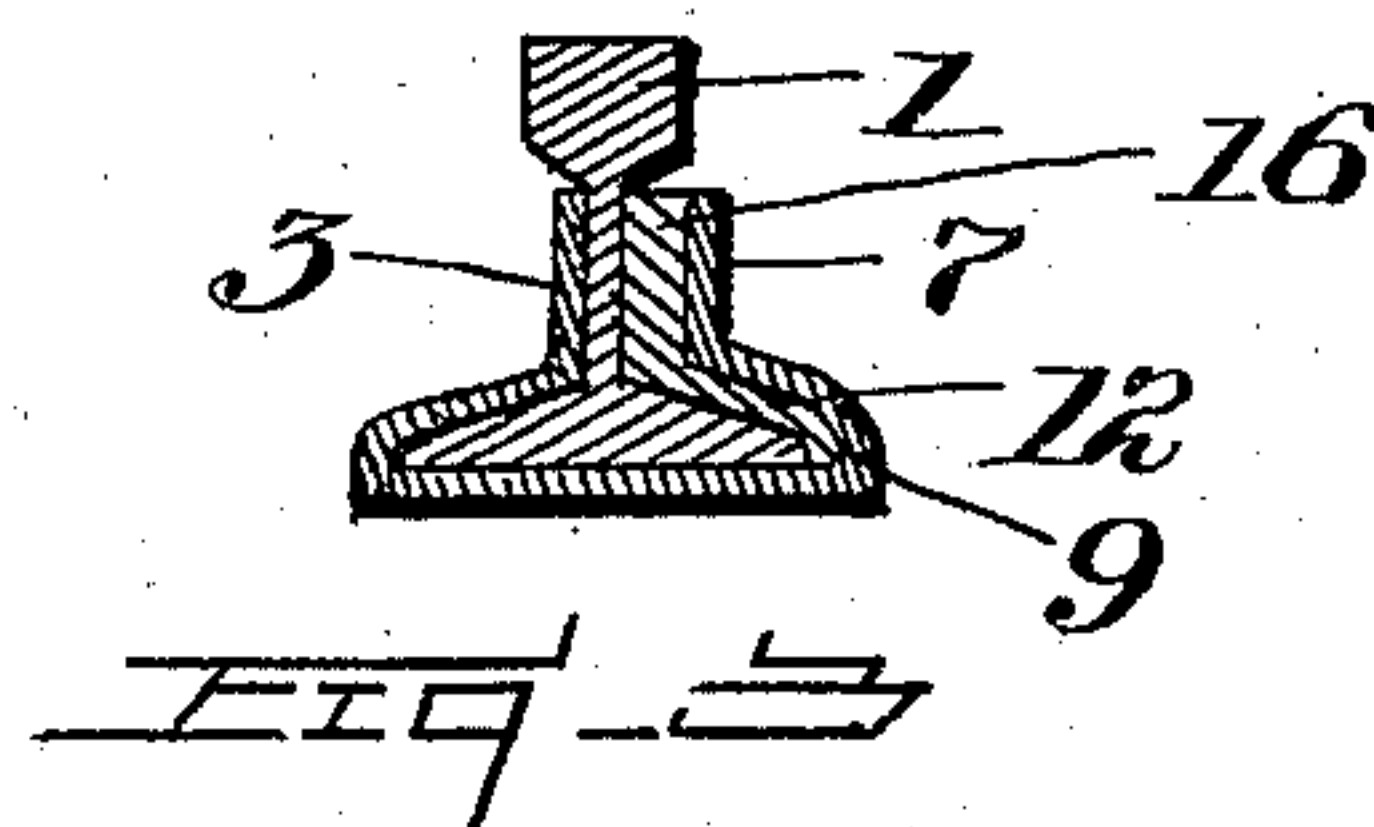
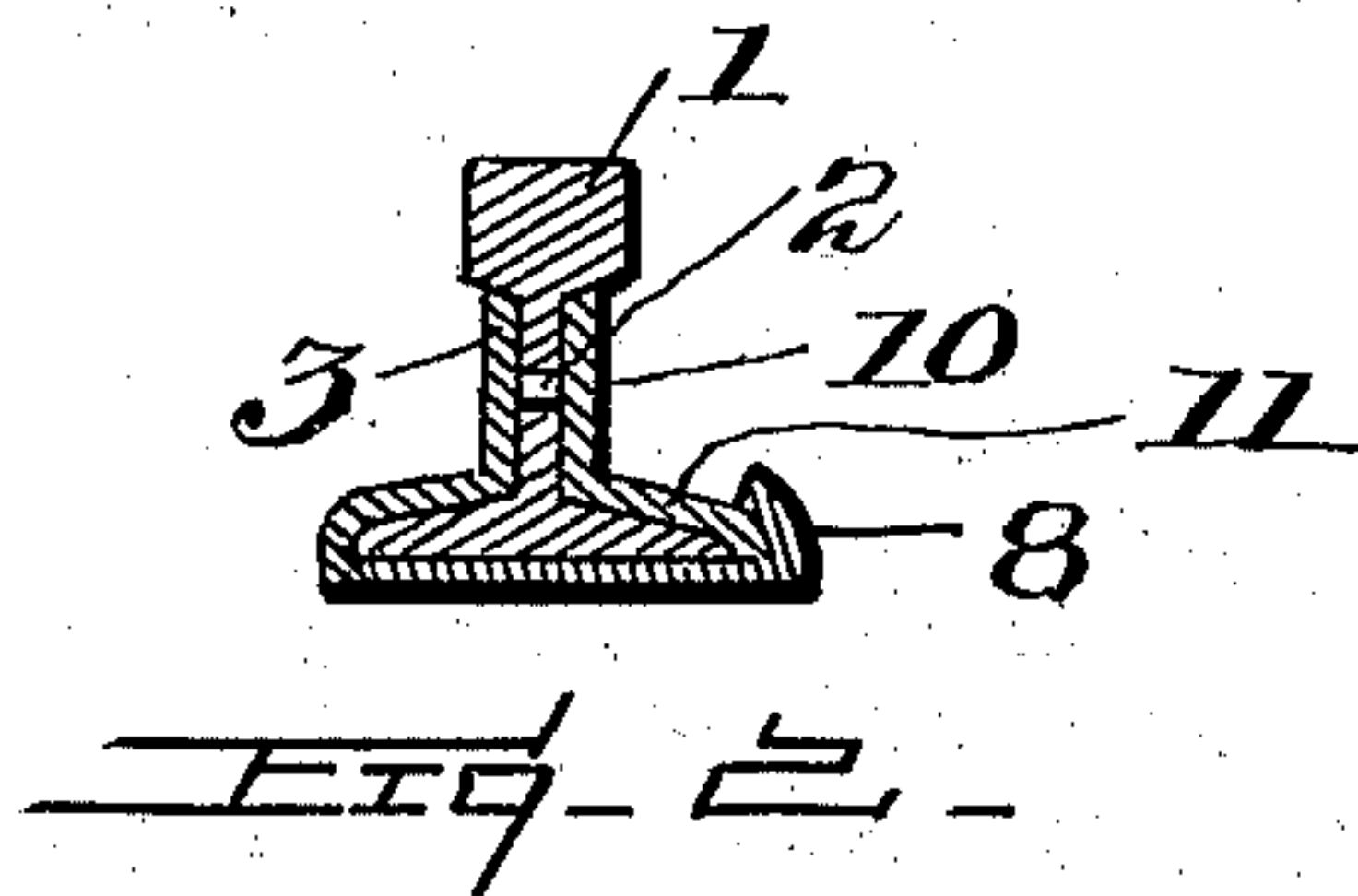
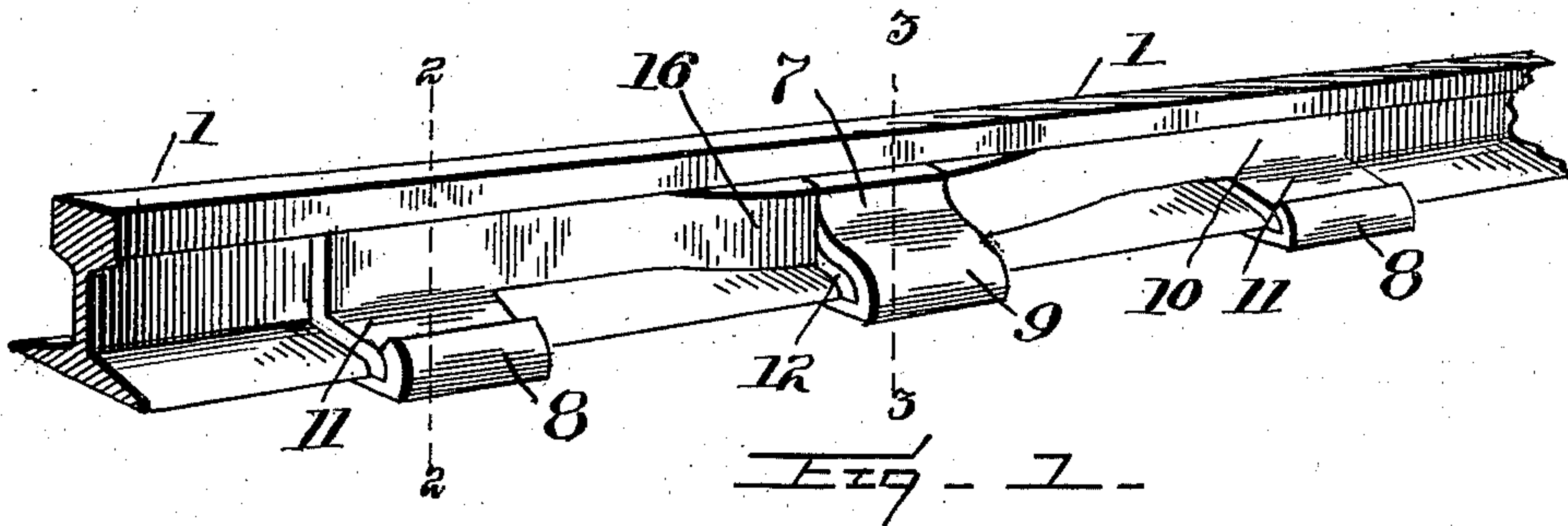
Patented July 29, 1902.

J. W. DIXON & J. D. DEVINE.

RAIL JOINT.

(Application filed Mar. 10, 1902.)

(No Model.)



Witnesses:
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UNITED STATES PATENT OFFICE.

JOSEPH W. DIXON AND JOHN D. DEVINE, OF VERSAILLES, PENNSYLVANIA.

RAIL-JOINT.

SPECIFICATION forming part of Letters Patent No. 705,827, dated July 29, 1902.

Application filed March 10, 1902. Serial No. 97,464. (No model.)

To all whom it may concern:

Be it known that we, JOSEPH W. DIXON and JOHN D. DEVINE, citizens of the United States of America, residing at Versailles, in the county of Allegheny 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.

10 This invention relates to certain new and useful improvements in rail-joints, and relates more particularly to that class wherein the use of nuts and bolts is entirely dispensed with.

15 The invention has for its object the provision of novel means whereby the sections of rails are securely fastened together and retained in a rigid position; furthermore, to provide novel means that will permit the rail-joint to be easily removed when desired.

20 With the above and other objects in view the invention consists in the novel construction, combination, and arrangement of parts to be hereinafter more fully described, and specifically pointed out in the claims.

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

30 Figure 1 is a perspective view of our improved rail-joint, showing the same applied in position. Fig. 2 is a vertical sectional view taken on the line 2 2 of Fig. 1. Fig. 3 is a similar view on the line 3 3. Fig. 4 is a perspective view of one of the interlocking fish-plates. Fig. 5 is a perspective view of the other interlocking fish-plate.

40 In the drawings the reference-numeral 1 represents the rails having openings 2 formed in the webs thereof. The interlocking fish-plate 3 carries a series of inwardly-projecting pins or studs 4, which are formed integral therewith. This fish-plate 3 also has formed thereto chair portions 5 5, carried at each end, and a central rib 6, carrying an upward extension 7 of sufficient resiliency to permit of its swinging outward and which extends up-
50 wardly in alinement with the upper ridge of the fish-plate 3. The said chair portions have

upturned ends 8, and the central rib is provided with a curved portion 9, which terminates in the upward extension 7.

The fish-plate 10 carries downward extensions 11 at each end and a central extension 12, these extensions 11 and 12 corresponding to the chair portions 5 and the central rib 6. This fish-plate 10 has also formed therein a central reduced portion 14, which forms a seat, and has side walls 15 on each side of the central reinforced portion 16.

The manner of applying our improved rail-joint is as follows: The fish-plate 3 carries the pins or studs 4, the latter extending through the openings 2 of the rail, the base of the rail being seated upon the chair portions 5 and central rib 6. The fish-plate 10 is then placed in proper position, the extensions 11 and 12 forming an interlocking engagement with the upturned ends 8 and portion 9 of the central rib, the upwardly-extending portion 7 being seated in the recess 14, thereby preventing the lateral movement of the device. Owing to the resiliency of the extension 7 it will be noted that the same will be gradually sprung in an outward direction when engaged by the wedge-shaped face of the fish-plate 16, and which extension 7 will become seated within the reduced portion 14 when the latter is in alinement with said extension.

The many advantages obtained by the use of our improved rail-joint will be readily apparent from the foregoing description taken in connection with the accompanying drawings.

It will be noted that various changes may be made in the details of construction without departing from the general spirit of our invention.

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

1. In a rail-joint, the combination with the rails, a fish-plate carrying pins or studs, chair portions on each end having upturned ends formed integral with said fish-plate, a central rib carrying an upward extension, a fish-plate carrying extensions adapted to interlock in the upturned ends of the chair portions, substantially as described.

2. In a rail-joint, the combination with the rails, a fish-plate carrying pins or studs extending inwardly, chair portions carrying up-
turned ends formed integral with said fish-
5 plate, a central rib carrying upward extensions, the fish-plate having a central recess or seat formed therein, downward extensions formed integral with said fish-plate adapted to interlock said chair portions and central

rib, all parts being arranged and operating substantially as described.

In testimony whereof we affix our signatures in the presence of two witnesses.

JOSEPH W. DIXON.

JOHN D. DEVINE.

Witnesses:

JOHN NOLAND,
E. E. POTTER.