

No. 897,961.

PATENTED SEPT. 8, 1908.

W. H. CARLIN.

FISH PLATE.

APPLICATION FILED MAY 23, 1907.

FIG. 1.

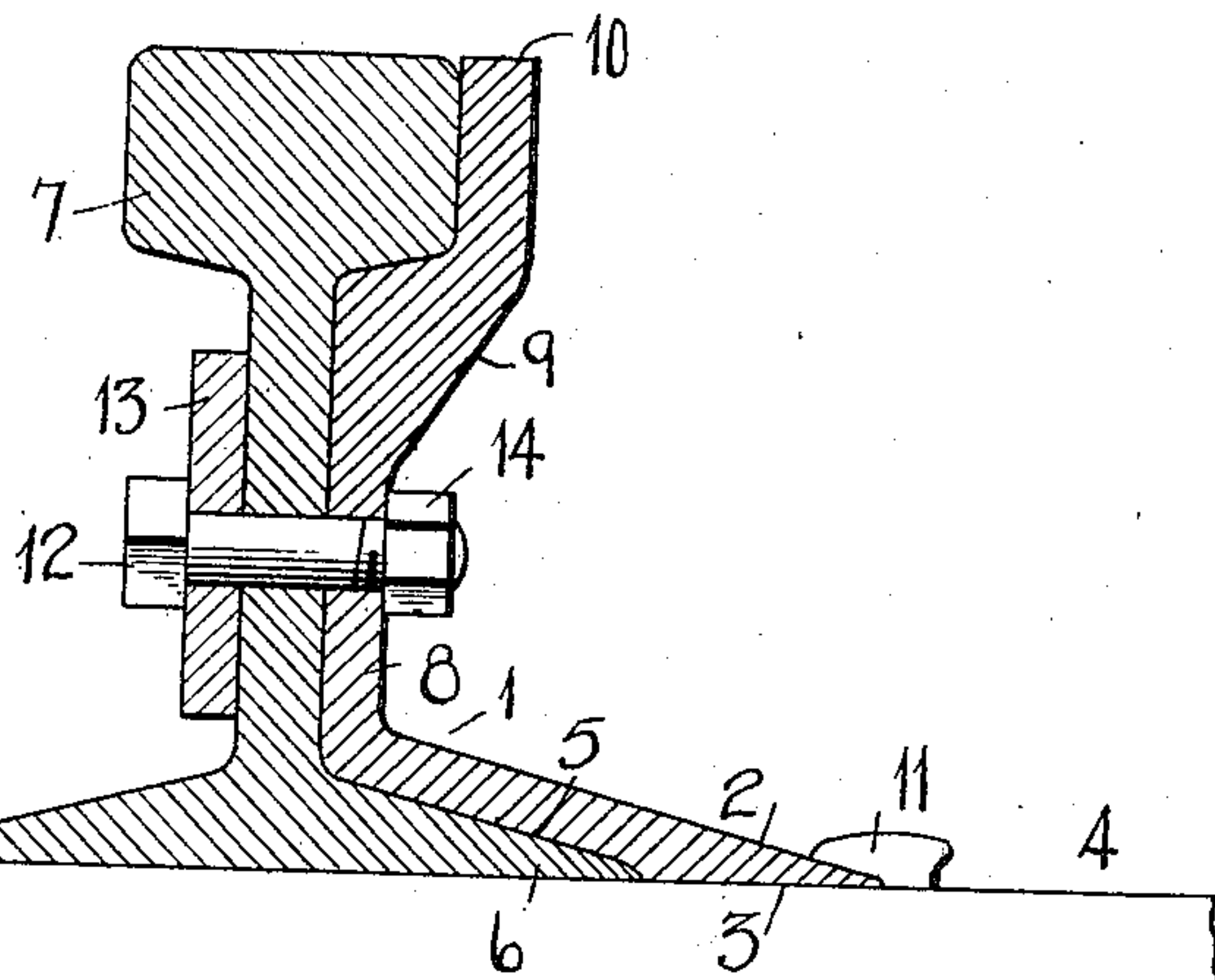


FIG. 2.

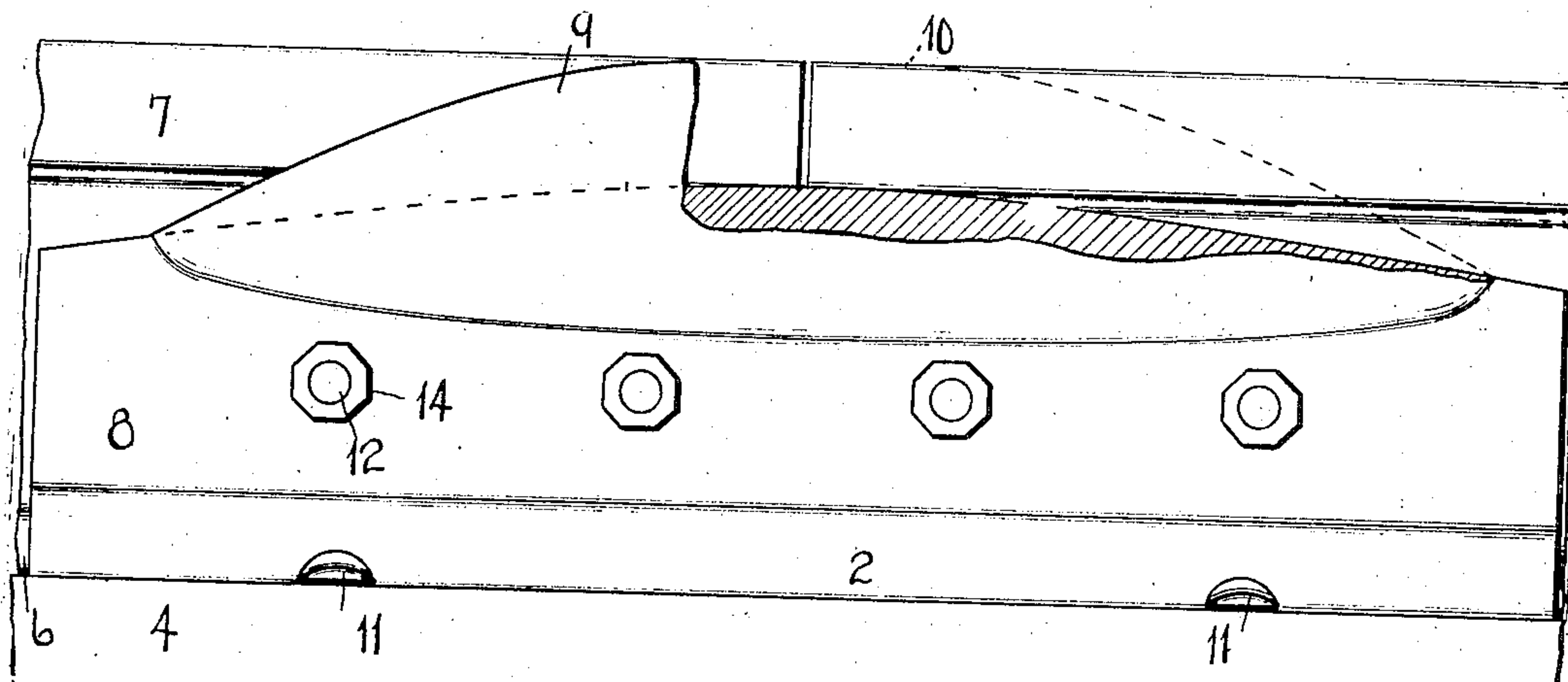
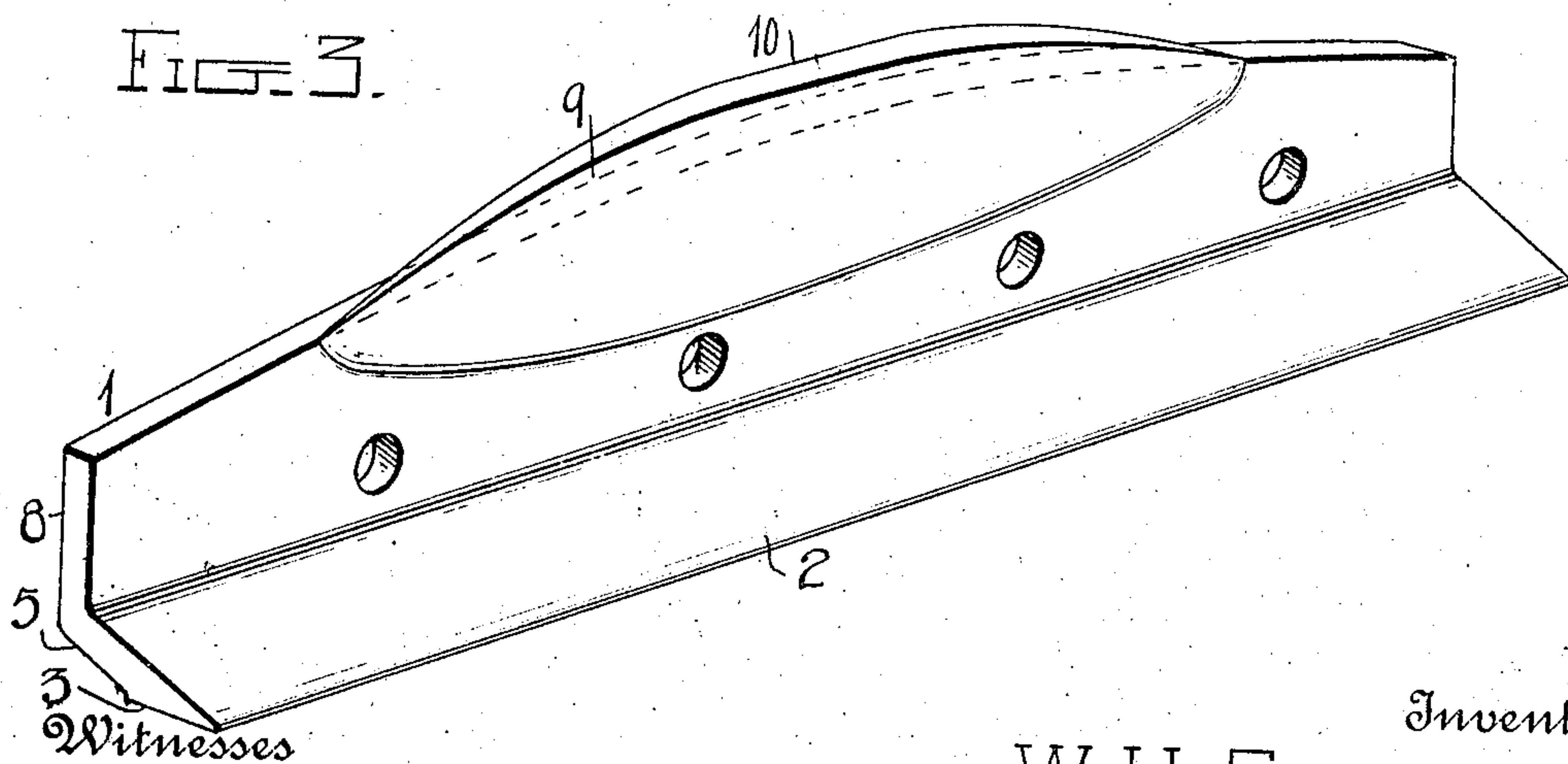


FIG. 3.



Witnesses

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WILLIAM H. CARLIN, OF OWENSBORO, KENTUCKY.

FISH-PLATE.

No. 897,961.

Specification of Letters Patent.

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Application filed May 23, 1907. Serial No. 375,326.

To all whom it may concern:

Be it known that I, WILLIAM H. CARLIN, a citizen of the United States, residing at Owensboro, in the county of Daviess and State of Kentucky, have invented certain new and useful Improvements in Fish-Plates; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains, to make and use the same.

My invention has relation to new and useful improvements in fish plates for railway rails, and has for its object the production of a simple and economical fish plate adapted to join the abutting ends of two adjacent rails, and to prevent the ends from wearing away rapidly, and consequent jarring or jolting of a train when passing thereover.

Another object is to provide a fish plate particularly adapted to join the ends of rails of light tracks, such as are used for temporary roadways in construction work, excavating, and the like.

With the foregoing and other objects in view, the invention consists of certain novel features of construction, combination and arrangement of parts, as will be more fully described and particularly pointed out in the appended claims.

In the accompanying drawings,—Figure 1 is a cross sectional view of my invention secured in position; Fig. 2 is a side elevation of my invention secured in position to the abutting ends of two adjacent rails, partly broken away; and Fig. 3 is a perspective view of my invention detached from position.

Referring now more particularly to the drawings, the numeral 1 represents my improved fish plate, which is preferably cast in one piece. Said fish plate comprises a base 2 provided at its bottom with a horizontal or flat portion 3, adapted to rest on cross ties 4, and an inner upwardly slanting wall 5 corresponding with the slant of and adapted to rest or bear on one of the base flanges 6 of the base of the rails 7. Said base is also provided at its inner edge with an upwardly extending side piece 8, adapted to work against one side of the webs of the rails, and its upper edge engage under the head or tread parts of the rails. Said upwardly extending piece is provided on its outer face with an integral central longitudinal bearing flange 9, having a central flat portion 10 at its upper edge, which is preferably flush or on a level with

the tops of the rails and serves as an additional bearing surface for the wheels of a train when passing thereover. The upper edge of said bearing flange is curved downwardly from the ends of said flat portion 10, so as to offer no resistance or obstruction to the wheels of a train, should the ends of the rails be depressed to any extent.

In the application of my invention, said fish plate is arranged at the abutting ends of two adjacent rails, the inner upwardly slanting wall 5 of the base 2 thereof working on one of the base flanges of the rails, and the outer flat portion 3 of said base resting on the cross ties 4 secured in position thereto by spikes 11 or other equivalent means. The upwardly extending side piece 8 of said angle plate works against one of the faces of the rail webs, and its upper edge engages the under side of the rail heads or treads and thereby greatly adds to the compressive strength of the same. This upper edge is curved as shown, to provide an upper bearing surface only under a small portion of the ends of the rail heads. This is advantageous when the track is laid on rough ground, as it always provides the sure contact between the underside of the rail head and the upper bearing head of the angle plate when the abutting rails are not in the same horizontal plane. The angle plate is secured in position to the rails by bolts 12 passing through corresponding openings in said upwardly extending side piece, through corresponding slots or openings in the ends of the rails, and through corresponding openings or apertures in a clamping plate 13 arranged on the opposite side of the rails and engaging the webs thereof at their adjacent ends, and nuts 14 screwing on the threaded ends of said bolts 12 and adapted to engage the outer face of said clamping plate.

It is a well-known fact that in building a railroad track a space of from one-fourth to one-half of an inch is left between the ends of the adjacent rails to allow for expansion. Because of this space considerable jolting of the train, displacement, breakage and weakening of the rails is a result; and in order to overcome the above-mentioned difficulties, I have provided my angle plate with said bearing flange 9 which serves as an additional bearing surface for the wheels of a train, bridges over the space between the ends of adjacent rails, and thereby greatly increases the life of the same and reduces jarring of the

train and liability of displacement of the rails to a minimum.

Having described my invention, I claim:—

5 In combination with the meeting ends of two rails, a fish plate comprising a side piece having an upper convex edge, the side piece being formed on its outer face with a central longitudinal bearing flange, the convex edge of the side piece extending approximately in
10 the arc of a circle and the upper edge of the bearing flange extending also approximately in the arc of a circle of less diameter and from points approximately co-incident with the upper edge of the side piece above the same,

the central portion of the upper edge of the side piece being adapted to be arranged under the tread portions of the rails and the upper edge of the bearing flange having a central longitudinal bearing portion adapted to lie flush with the upper surfaces of the rail treads. 15 20

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

WILLIAM H. CARLIN.

Witnesses:

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JESSE B. HAIL.