

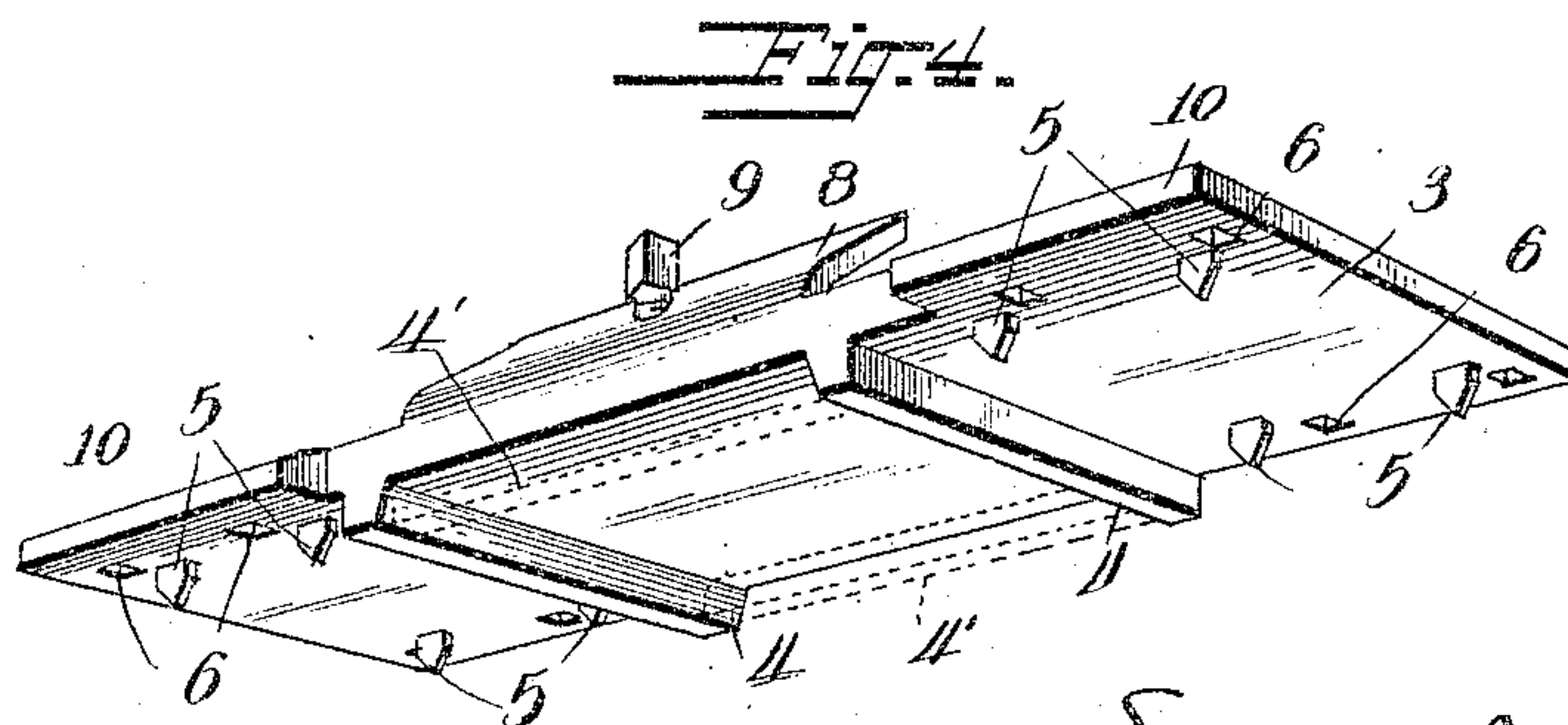
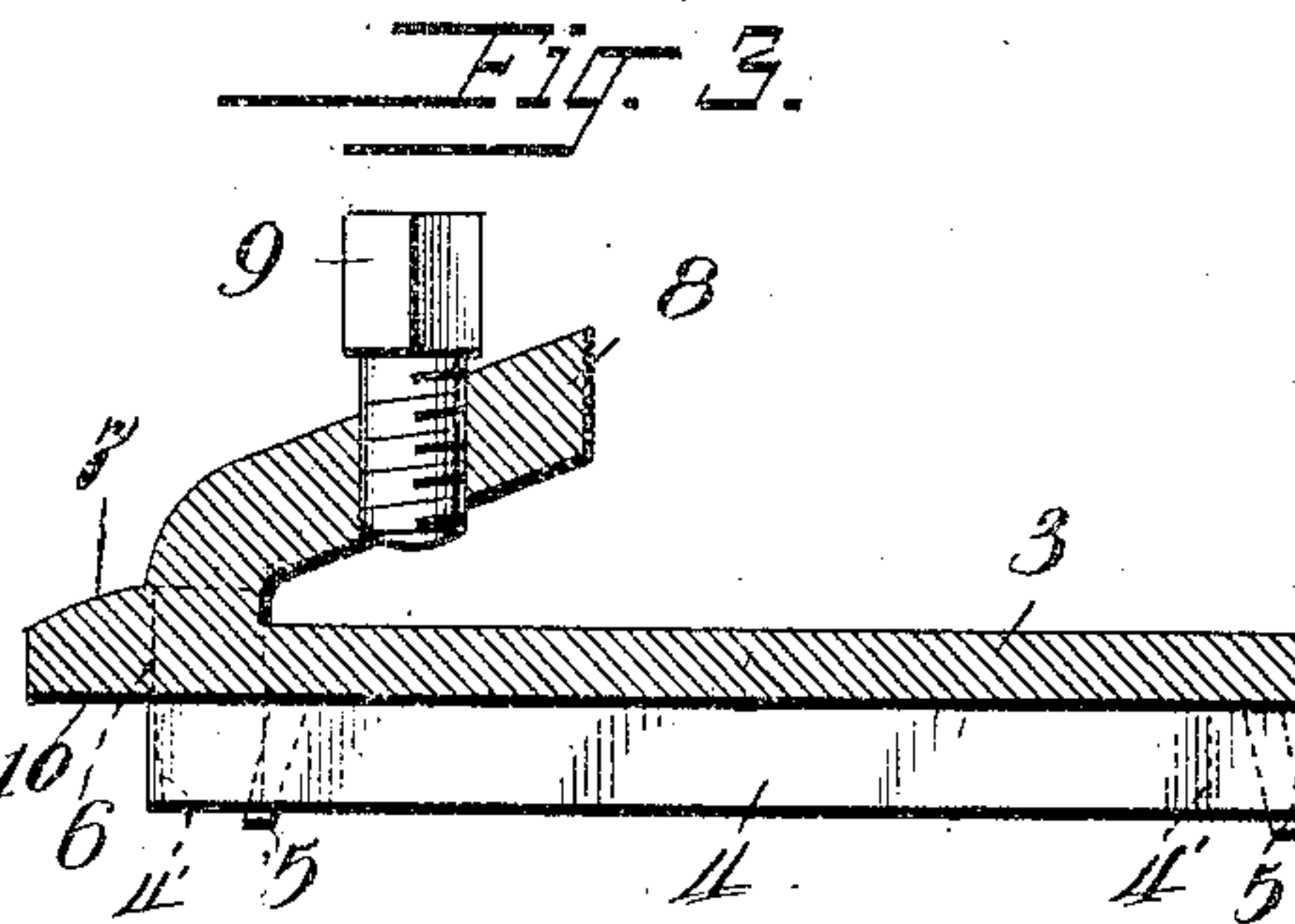
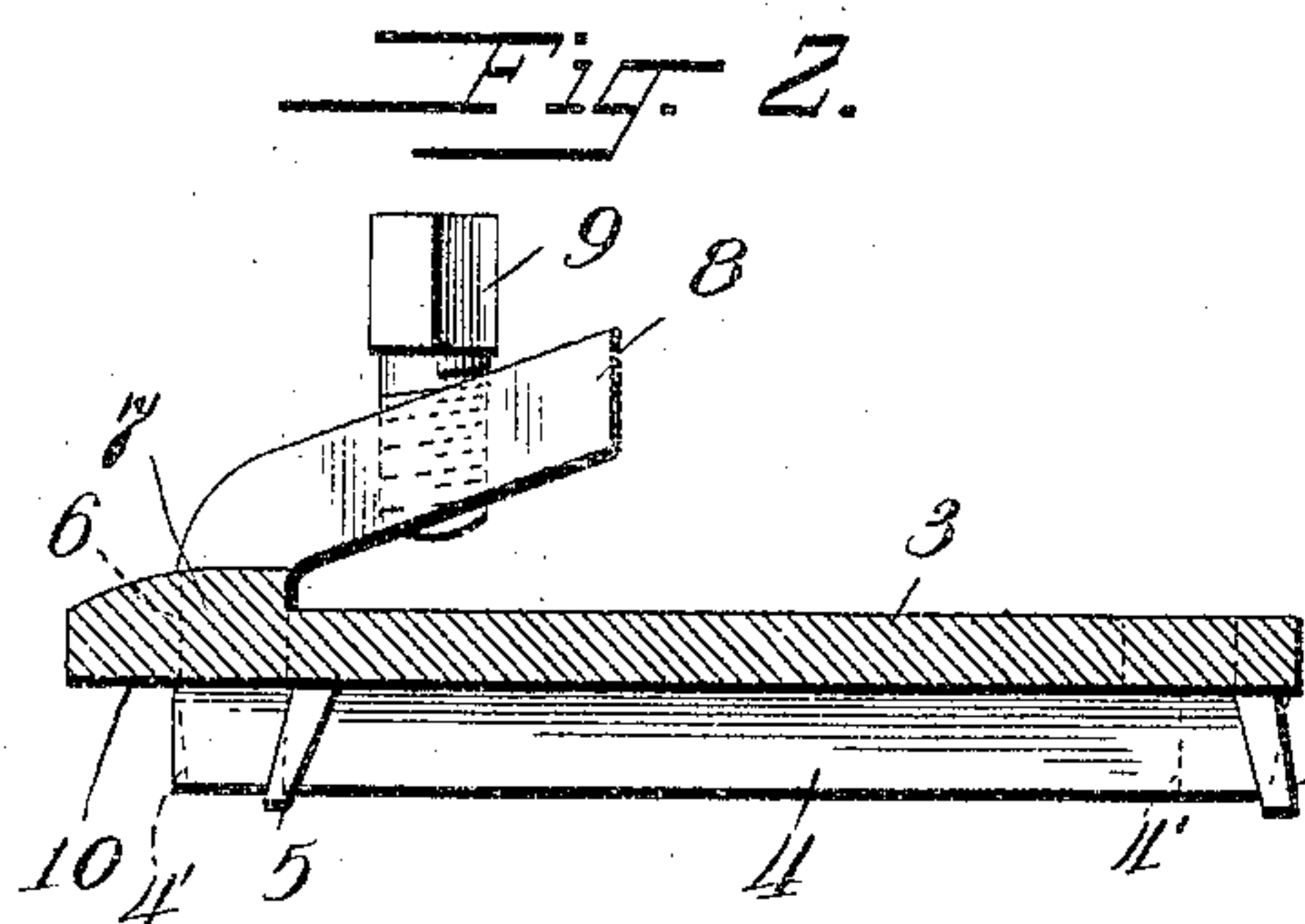
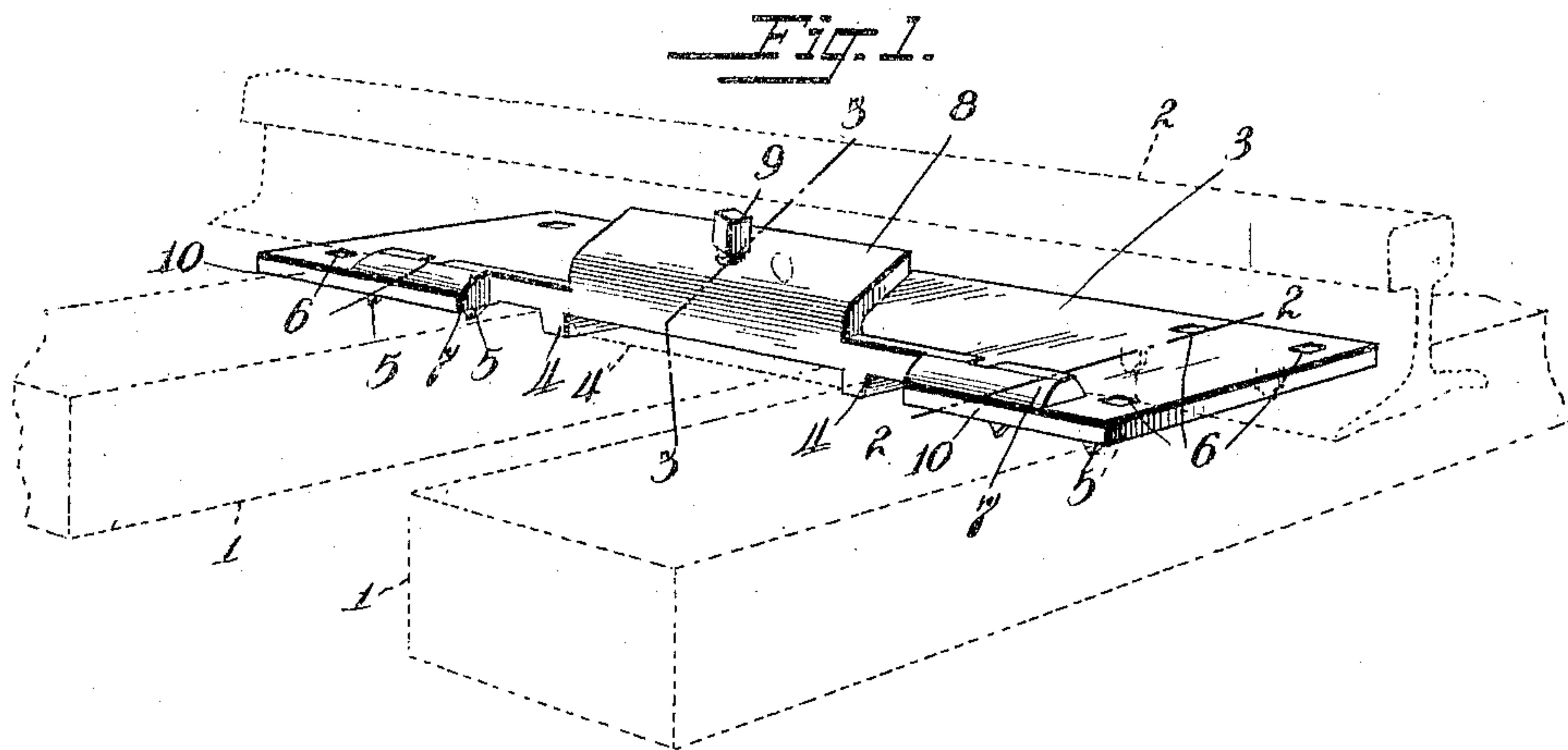
No. 818,370.

PATENTED APR. 17, 1906.

S. J. GRUBB.

TIE PLATE OR SEAT FOR RAILWAY RAILS.

APPLICATION FILED AUG. 30, 1905.



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UNITED STATES PATENT OFFICE.

SAMUEL JACKSON GRUBB, OF DOOLEY, VIRGINIA.

TIE-PLATE OR SEAT FOR RAILWAY-RAILS.

No. 818,370.

Specification of Letters Patent.

Patented April 17, 1906.

Application filed August 30, 1905. Serial No. 276,463.

To all whom it may concern:

Be it known that I, SAMUEL JACKSON GRUBB, a citizen of the United States, residing at Dooley, county of Wise, and State of Virginia, have invented certain new and useful Improvements in Tie-Plates or Seats for Railway-Rails, of which the following is a specification.

This invention relates to tie-plates or seats for railway-rails.

Much difficulty is experienced from the creeping and spreading of rails on grades and curves, necessitating constant inspection and requiring repairs from time to time on account of loosened ties and spread and broken bolts and spikes, beside constituting an ever-present menace to rolling-stock and passengers.

The present invention seeks to obviate these difficulties, expenses, and dangers by the provision of an improved tie-plate or seat for receiving the rails and securing them to the ties.

The invention is set forth in detail hereinafter, and the novel features are recited in the appended claims.

In the accompanying drawings, Figure 1 is a perspective view of the invention in use, the rail being shown in dotted lines; Fig. 2, a cross-section on line 2 2 of Fig. 1; Fig. 3, a cross-section on line 3 3 of Fig. 1, and Fig. 4 a bottom perspective view.

1 represents adjacent ties of a railway, one of the rails 2 of which is shown in dotted lines. My invention is more particularly intended for use at points intermediate the rail ends; but it can be applied at the rail-joint, if desired. The seat 3 is a metal plate of sufficient length to bridge two adjacent ties and rest thereon, the bottom thereof having integral transverse ribs or braces 4, which may be spaced properly apart, so as to lie against the sides of the ties. Projecting from the bottom of the respective end portions of the seat 3 are integral prongs or spike-like points 5, which are adapted to penetrate the respective ties and hold the device in position by simply hammering on top of the seat 3. Each end portion of the seat has four (more or less) spike-holes 6, through which the usual spikes may be driven into the ties. The outer edge of the seat has an integral raised flange 7 for the rail-base to abut against to prevent it from passing off the seat, and at its central portion this flange is enlarged and formed into a flange 8, which is adapted to overhang the rail-base and abut the rail-

web. Threaded vertically through this flange 8 to engage the base-flange of the rails is a headed set-screw 9, the head of which may be of a size adapted for engagement by the usual track-wrench. To prevent the rail from turning over, I provide the outward flanges or extensions 10, lying on top of the ties.

The present invention is especially adapted for use on dips and curves to prevent the rails from spreading or creeping, while the use of the spikes and prongs prevents the ties from loosening at dangerous points of the track by coupling or tying the ties together. Should the spikes loosen unduly, the prongs hold the seat to the ties. The invention, by providing a plate between the rail and ties, also prevents the ties from being cut by the rail-bases from the heavy strains to which passing trains subject them.

The ribs 4 may run lengthwise instead of crosswise of plate 3, in which case they would be of substantially the same length as when extending crosswise of plate 3.

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

1. A tie-plate or seat for rails, comprising a seat-plate having at its respective end portions integral prongs projecting downwardly from its bottom to enter adjacent ties and also provided at its end portions with holes to receive spikes to enter adjacent ties, said seat-plate being provided with an upwardly-projecting flange to engage the outer edge of the rail-base and also having a large flange at its outer portion which is adapted to overhang the rail-base, and a set-screw threaded through said overhanging flange in a general upright direction and adapted to engage the rail-base.

2. A tie-plate or seat for rails, comprising a seat-plate provided at its outer portion with an upwardly-projecting flange to engage the outer edge of the rail and also having a large flange at its outer portion which is adapted to overhang the rail-base, a set-screw threaded through said overhanging flange in a general upright direction and adapted to engage the rail-base, and means for securing the end portions of the plate to adjacent ties.

3. A tie-plate or seat for rails, comprising a seat-plate provided at its outer portion with an upwardly-projecting flange to engage the outer edge of the rail and also having a large flange at its outer portion which is adapted to overhang the rail-base, a set-screw

threaded through said overhanging flange in
a general upright direction and adapted to
engage the rail-base, said seat-plate having
lateral extensions at its end portions beyond
5 the upright flange aforesaid which rest on the
ties, and means for securing the end portions
of the plate to adjacent ties.

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

SAMUEL JACKSON GRUBB.

Witnesses:

D. W. HOLYFIELD,
V. O. HILL.