

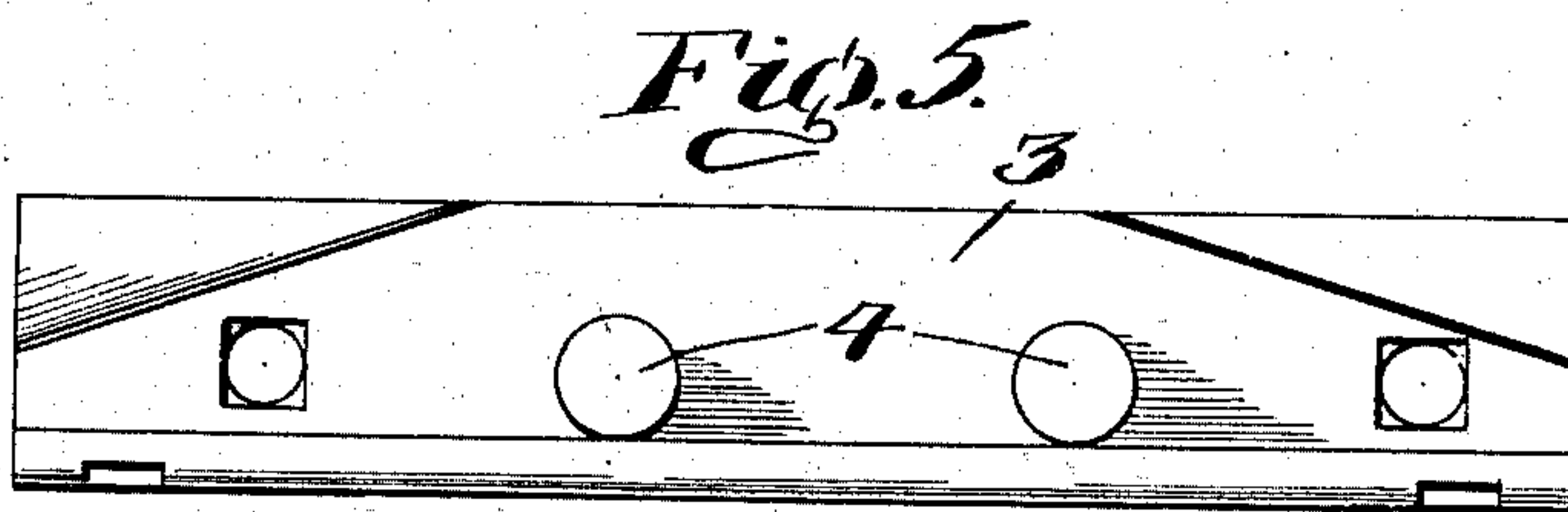
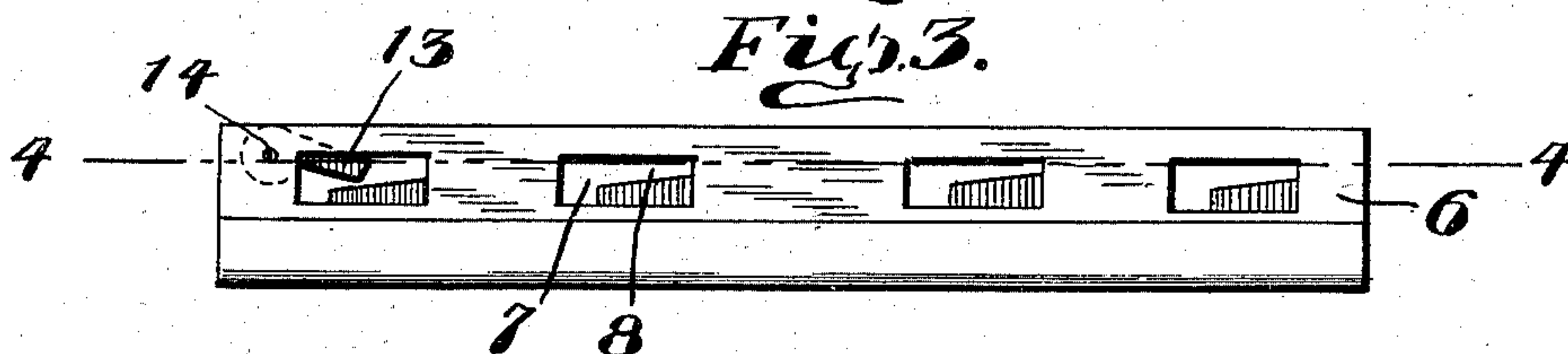
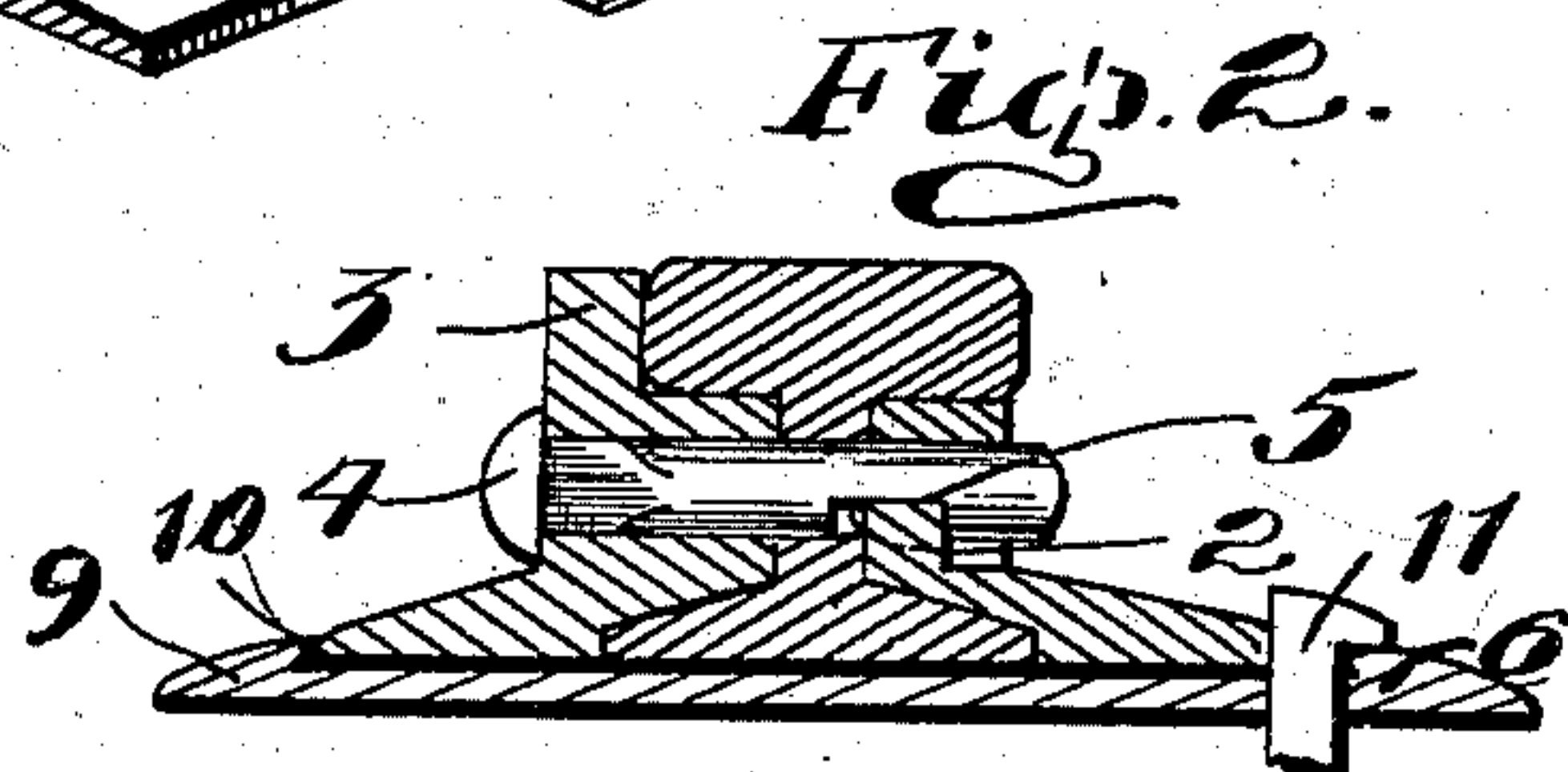
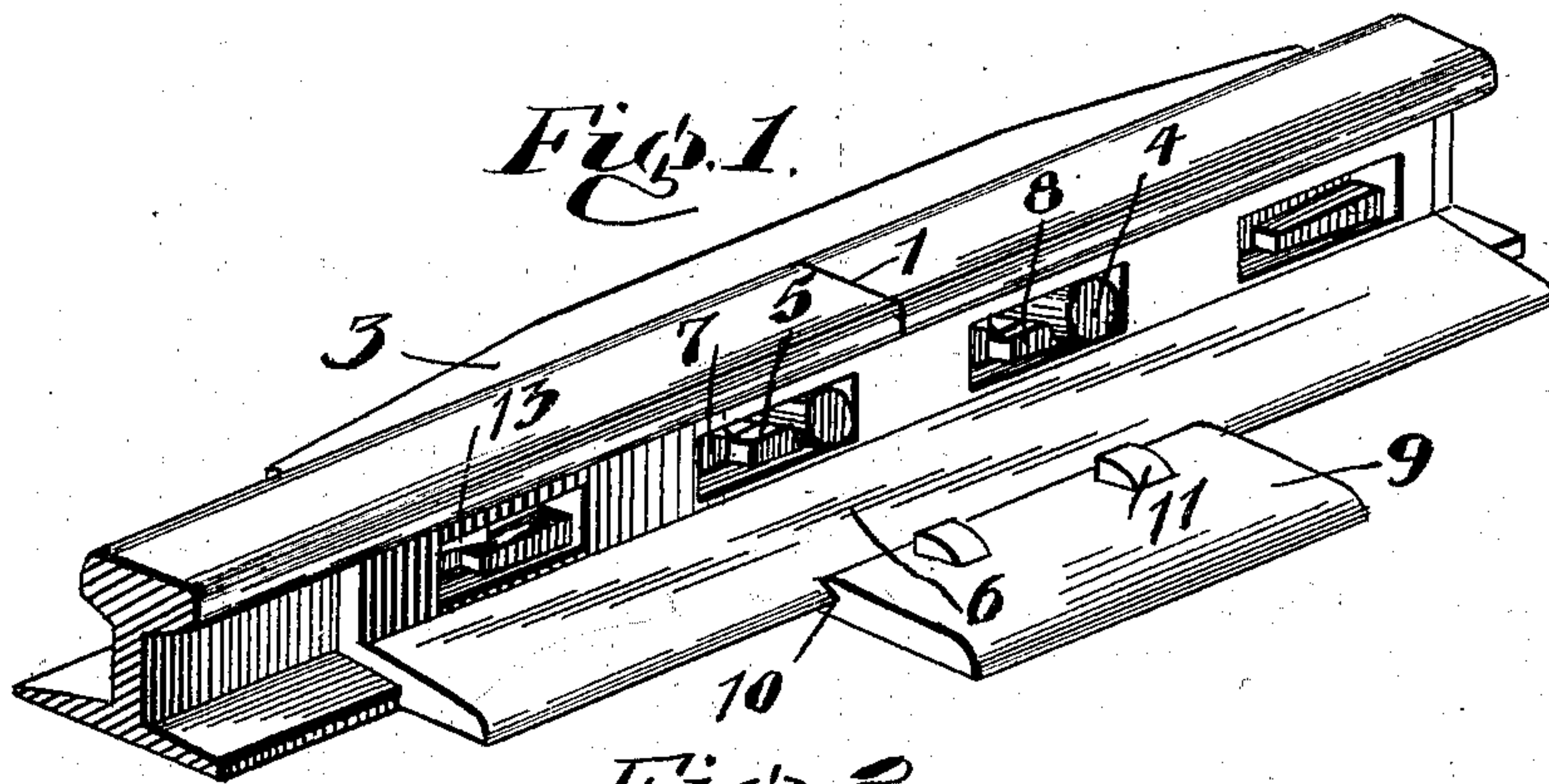
No. 748,234.

PATENTED DEC. 29, 1903.

B. P. TAYLOR.
RAIL JOINT.

APPLICATION FILED MAY 14, 1903.

NO MODEL.



Inventor

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UNITED STATES PATENT OFFICE.

BENJAMIN PRIER TAYLOR, OF BERNIE, MISSOURI.

RAIL-JOINT.

SPECIFICATION forming part of Letters Patent No. 748,234, dated December 29, 1903.

Application filed May 14, 1903. Serial No. 157,171. (No model.)

To all whom it may concern:

Be it known that I, BENJAMIN PRIER TAYLOR, a citizen of the United States, residing at Bernie, in the county of Stoddard and State of Missouri, have invented certain new and useful Improvements in Rail-Joints; and I do declare the following to be a full, clear, and exact description of the invention, such as it appertains to make and use the same.

The invention relates to improvements in rail-joints.

The object of the invention is to provide a joint of this character which shall be simple of construction, durable in use, comparatively inexpensive of production, and which will securely hold together without the use of nuts the adjacent ends of railroad-rails and overcome the tendency of the rails spreading or twisting apart.

With these 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 perspective view of the adjacent ends of two railroad-rails, illustrating the application of the invention. Fig. 2 is a vertical cross-sectional view through one of the bolts and the parts through which it extends. Fig. 3 is a front elevation of the locking fish-plate. Fig. 4 is a detail horizontal section of the locking fish-plate, taken on the line 4-4 of Fig. 3 and showing the pivoted locking dog or detent. Fig. 5 is a front or outside elevation of the other fish-plate.

Referring more particularly to the drawings, 1 denotes the abutting ends of two railroad-rails provided with elongated apertures 2.

3 denotes a fish-plate to fit the outer sides of the rails and provided with lateral projecting studs 4, which are adapted to project through the elongated apertures formed in the web of the rails and hold said rails end to end. These studs may be formed integral with the fish-plate or may be made separate therefrom, as shown in the drawings, by providing each stud or bolt with a square head which is adapted to seat in a similar-shaped

recess in the fish-plate 3. Each stud is formed on its lower side near its outer end with a slot or recess 5 for a purpose hereinafter to appear.

6 denotes the locking fish-plate, which is shaped to engage the ends of the rails in the usual manner and is provided with bolt-holes 7, from each of which leads a longitudinal slot 8, the lower wall of which is inclined upwardly from the bolt-hole and is adapted to engage the recess or notch of the lug. The outer face of the fish-plate directly beneath the slot 8 is inclined slightly outwardly from the bolt-hole 7 in order to draw upon the bolts or studs and bind the parts together when said locking fish-plate is moved longitudinally into position, as hereinafter described. Upon the inner side of the locking fish-plate adjacent to the end bolt-hole and slot is a recessed or cut-away portion 12, in which a dog or detent 13 is pivoted at 14. The free end of this dog is adapted to drop by gravity into the slot 8, and thereby lock the studs or bolts in the same after the parts are properly assembled. When this dog 13 is swung up to a horizontal position, it will lie outside or above the slot 8 and will not interfere with movement of the fish-plate when it is placed in position.

In assembling the parts the fish-plate 3 is fitted to the sides of the two rails with its lugs or bolts projecting through the bolt-holes of the rails. The locking fish-plate is now engaged with the opposite sides of the rails with the lugs or bolts projecting through the bolt-holes of said locking fish-plate. The locking fish-plate is now moved longitudinally, and the base-walls of the slot 8 engage the notches or recesses in the lugs, thus securely clamping the parts together, due to the inclined base-walls of the slots 8. When the parts are thus assembled, the pivoted dog or detent 13 will drop down from its horizontal position into the slot 8 behind the lug or bolt 4 and prevent longitudinal movement of the locking fish-plate.

If desired, I may provide a chair 9, which is formed with a dovetailed recess 10 to engage the bevel edges of the base of the rails. The chair is held to the ties and the rails to the chair by spikes 11, as seen in Figs. 1 and 2.

From the foregoing description, taken in

connection with the accompanying drawings, the construction and operation of the invention will be readily understood without requiring a more extended explanation.

5 Various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

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

1. The combination with the abutting ends of two railroad-rails provided with bolt-holes, 15 of a fish-plate having lateral studs projecting through said bolt-holes and formed on their under sides at their outer ends with recesses or notches, of a second fish-plate formed with bolt-holes through which said 20 studs project and with longitudinally-disposed slots that communicate with the bolt-holes of the fish-plate, the base-walls of said slots being inclined upwardly from said bolt-holes, whereby a longitudinal movement of 25 the last-named fish-plate will cause the inclined base-wall to ride into engagement with the walls of the notches or recesses of the studs and thus securely clamp the parts together, substantially as described.

2. The combination with the abutting ends 30 of two railroad-rails provided with bolt-holes, of a fish-plate having lateral studs projecting through said bolt-holes and formed on their under sides at their outer ends with recesses or notches, of a second fish-plate 35 formed with bolt-holes through which said studs project and with longitudinally-disposed slots that communicate with the bolt-holes of the fish-plate, the front of the fish-plate below the longitudinal slots being inclined outwardly from the bolt-holes, and the 40 base-walls of said slots being inclined upwardly from said bolt-holes, whereby a longitudinal movement of the last-named fish-plate will cause the inclined portions in front 45 of the slots and the inclined base-walls of the slots, to ride into engagement with the walls of the notches or recesses of the studs and thus securely draw the parts together and clamp the same, substantially as described. 50

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

BENJAMIN PRIER TAYLOR.

Witnesses:

W. B. JENNINGS,

J. B. HIGGIN BOTHANS.