

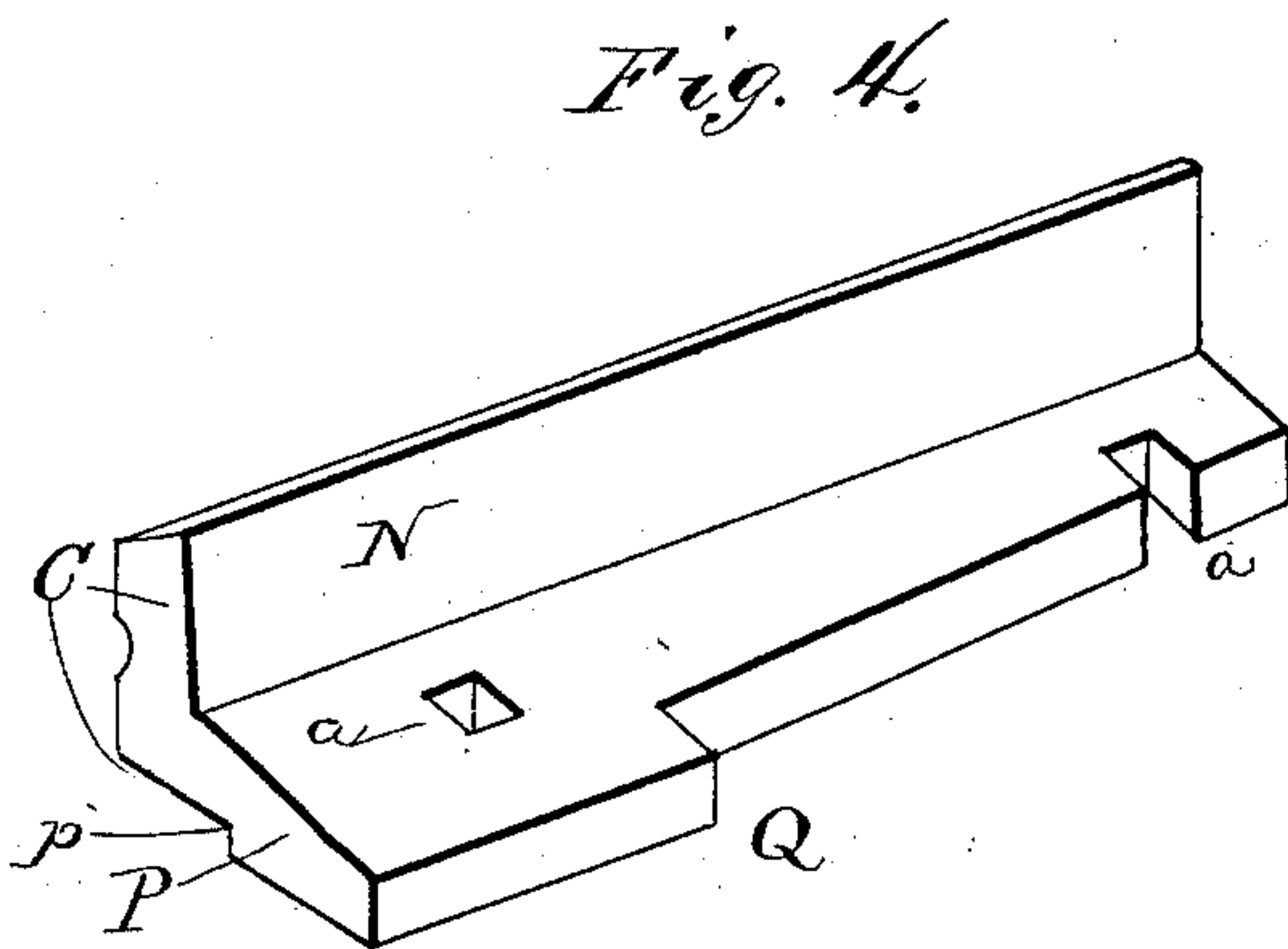
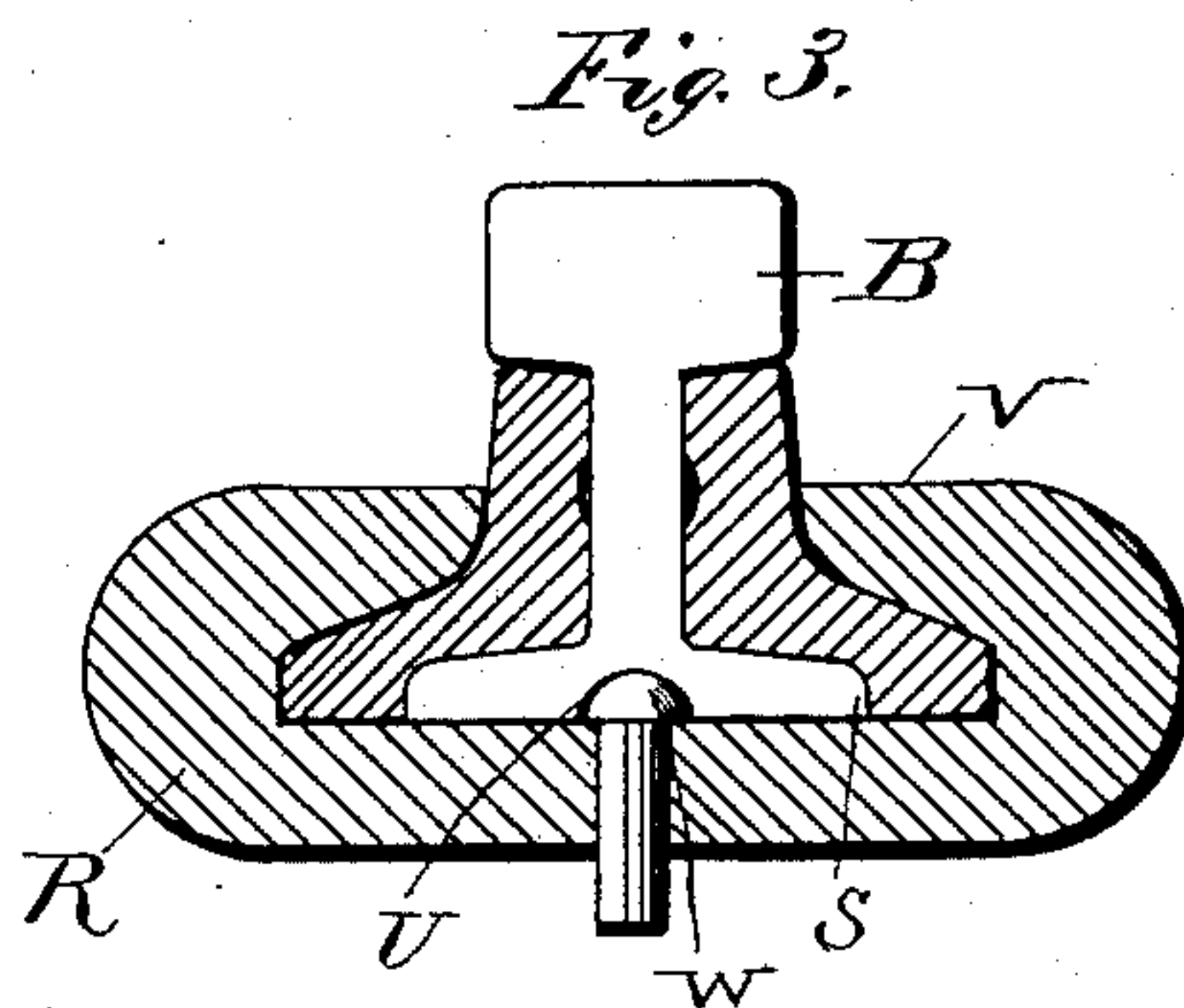
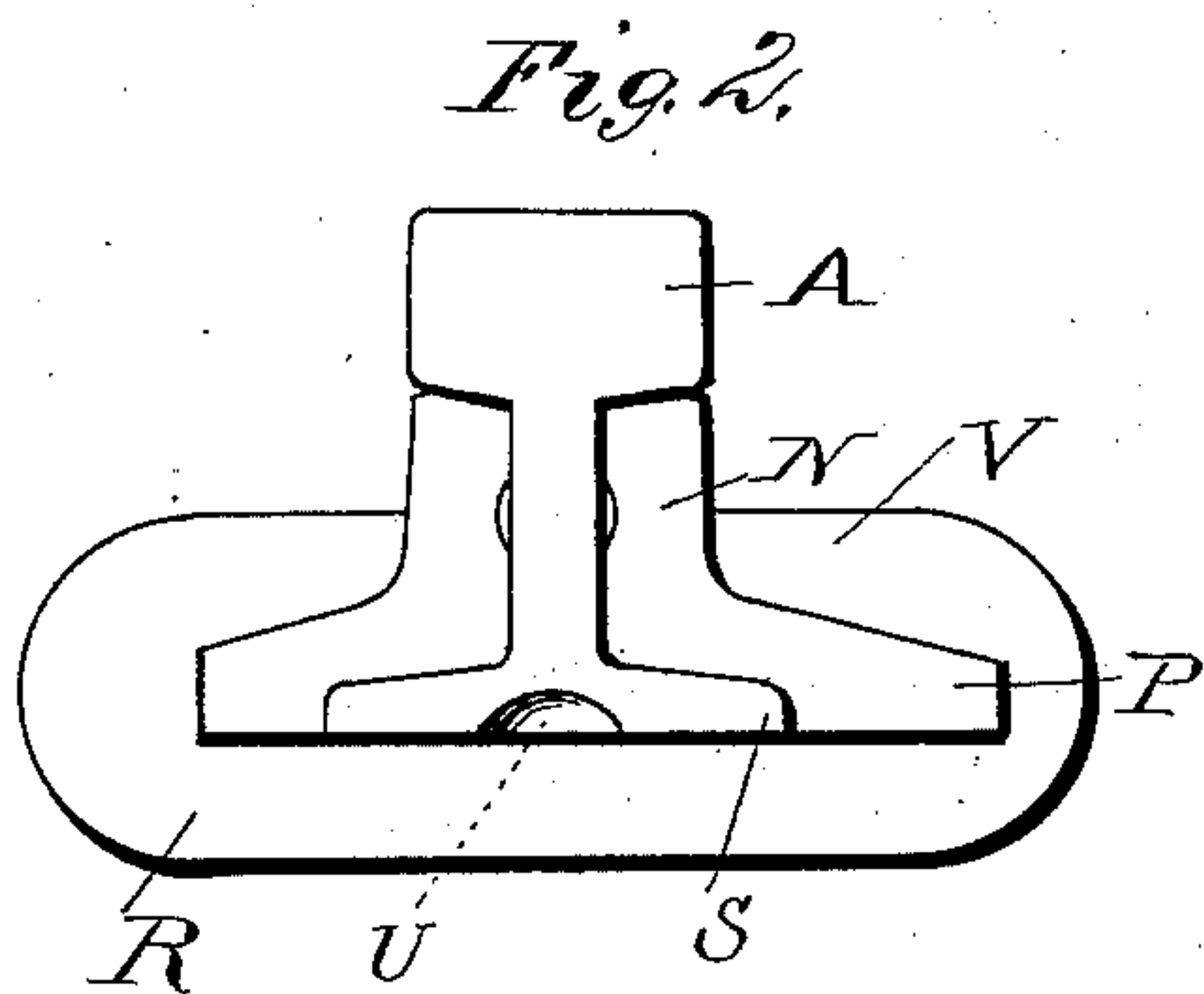
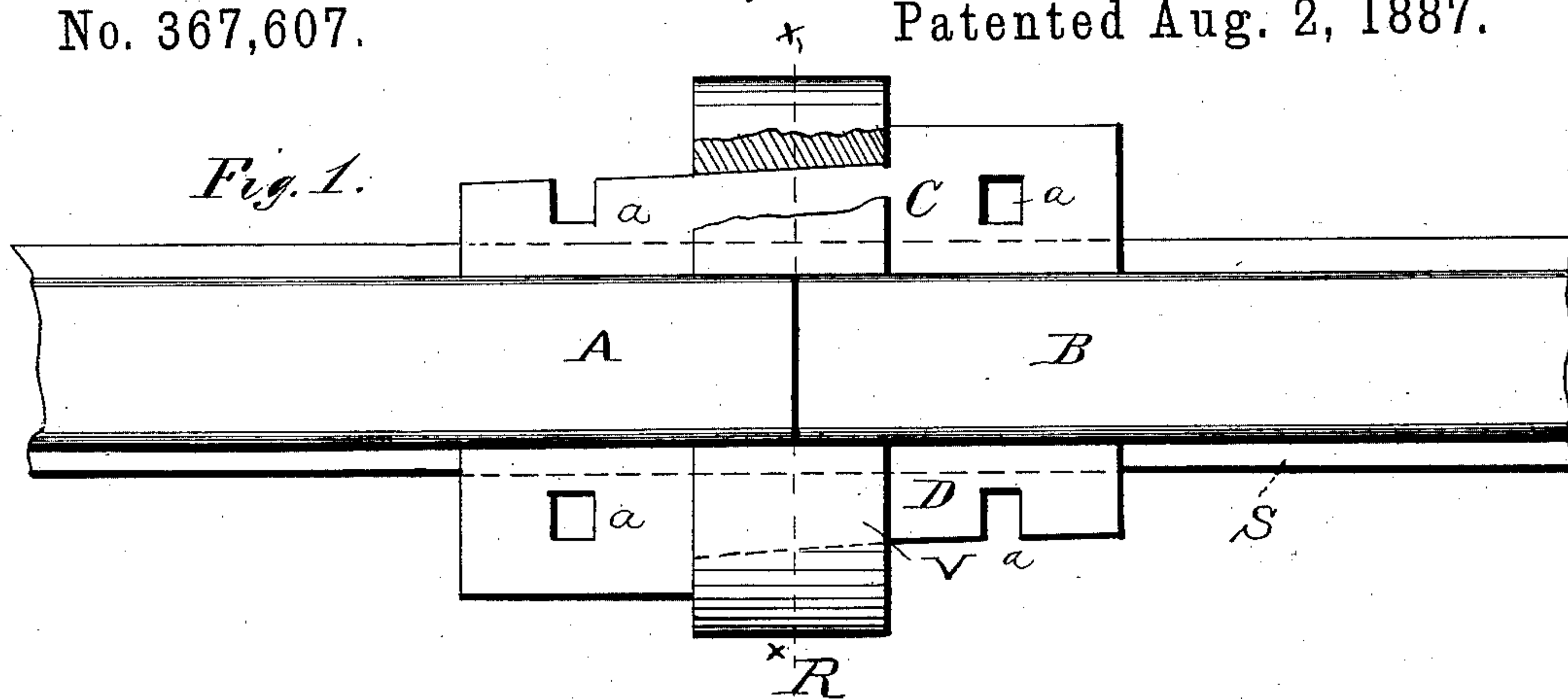
(No Model.)

B. S. DORAN.

RAILROAD TRACK AND RAIL.

No. 367,607.

Patented Aug. 2, 1887.



WITNESSES
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UNITED STATES PATENT OFFICE.

BERNARD S. DORAN, OF JOHNSTOWN, PENNSYLVANIA.

RAILROAD TRACK AND RAIL.

SPECIFICATION forming part of Letters Patent No. 367,607, dated August 2, 1887.

Application filed October 20, 1886. Serial No. 216,751. (No model.)

To all whom it may concern:

Be it known that I, BERNARD S. DORAN, a citizen of the United States, residing at Johnstown, in the county of Cambria and State of Pennsylvania, have invented certain new and useful Improvements in Railroad Tracks and Rails; 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, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

The invention relates to railway-joints; and it consists in the construction and novel combination of parts, as hereinafter set forth.

In relation to the accompanying drawings, Figure 1 represents a plan view of two adjoining rails with the invention applied thereto. Fig. 2 represents an end view of the device with one rail withdrawn. Fig. 3 represents a vertical section on the line *x x* of Fig. 1. Fig. 4 represents a perspective view of one of the slide-plates.

Referring by letter to the drawings, A and B designate two adjoining rails, and C and D the opposite slide-plates, and R the connecting clamp-chair of the joint. Each slide-plate C and D consists of a vertical web, N, and a horizontal flange, P, the lower face of which is shouldered at *p* to fit upon one side of the base-flange of the rail.

The flange P is provided at a suitable point of its edge with a shoulder, Q. On the side from the shoulder to the nearest end the edge of the flange P is preferably parallel to the flange N; but the said edge tapers inwardly at a slight angle toward the other end. *a a* are suitable spike-holes and notches made at suitable points in the flange P to enable the latter to be secured to a tie. The slide-plates are placed against the opposite sides of the webs of the adjoining ends of the rails, the web-plates fitting closely between the heads and base-flanges thereof.

The clamp-chair R fits over or seats the flanges P, the edges of the seat being inclined to fit the inclined parts of the edges of the flanges and the inwardly-turned upper parts, V, of the clamp-chair lying upon the upper

surfaces of said flanges. The adjoining ends of the rails have centrally on their lower edges the notches U, which rest against the head of a pin, W.

To fit the parts together, the clamp-chair is placed in position and the rails slipped thereon till their ends abut against each other and against the head of the pin W. The slide-plates C and D are then slipped in place upon corresponding parts of the base-flanges S of the rails till their shoulders Q abut against the opposite sides of the clamp-chair. They are then spiked to the ties below.

The device thus constructed is a strong and effective rail-joint, and avoids the necessity of boring the web of the rail or of using nuts.

I am aware that rail-joints have been made in which slide-plates provided with shoulders on the edges of their horizontal flanges, with notches in said edges, and a clamp-chair provided with a seat for the rails and having inwardly-turned parts that bear on said horizontal flanges, have formed part, and such I do not claim, broadly.

Having described my invention, I claim—

1. The combination, with the railway-rails provided with the recesses or notches in the meeting ends of their base-flanges, of the shouldered slide-plates, the central clamping-chair having a seat for the rails and slide-plates and inwardly-turned parts above and bearing on the horizontal flanges of the slide-plates, and the pin passing through the floor of the chair, with its head seated in the recesses in the edges of the meeting ends of the rails, substantially as specified.

2. The combination of the railway-rails, the slide-plates provided with the vertical web-plates, and the shouldered horizontal flanges having the tapered edges on one side of said shoulders, and the central clamp-chair having a seat with inclined edges to correspond with the inclined edges of the flanges, substantially as specified.

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

BERNARD S. DORAN.

Witnesses:

MAX RIFFLE,
ABRAM MANGG.