

No. 755,493.

PATENTED MAR. 22, 1904.

S. B. HOOVER.
RAILROAD TIE.

APPLICATION FILED NOV. 4, 1903.

NO MODEL.

2 SHEETS—SHEET 1.

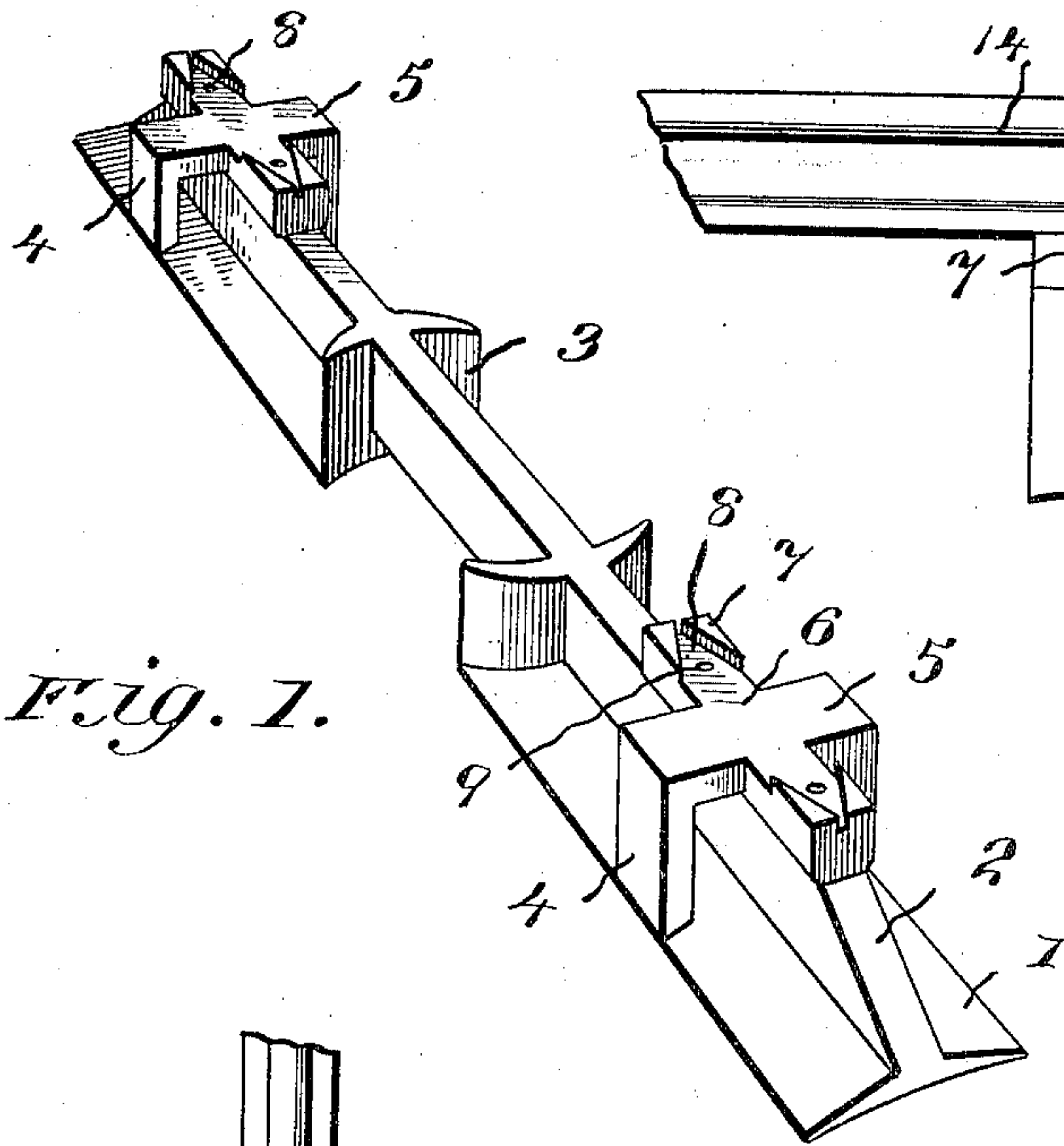


Fig. 1.

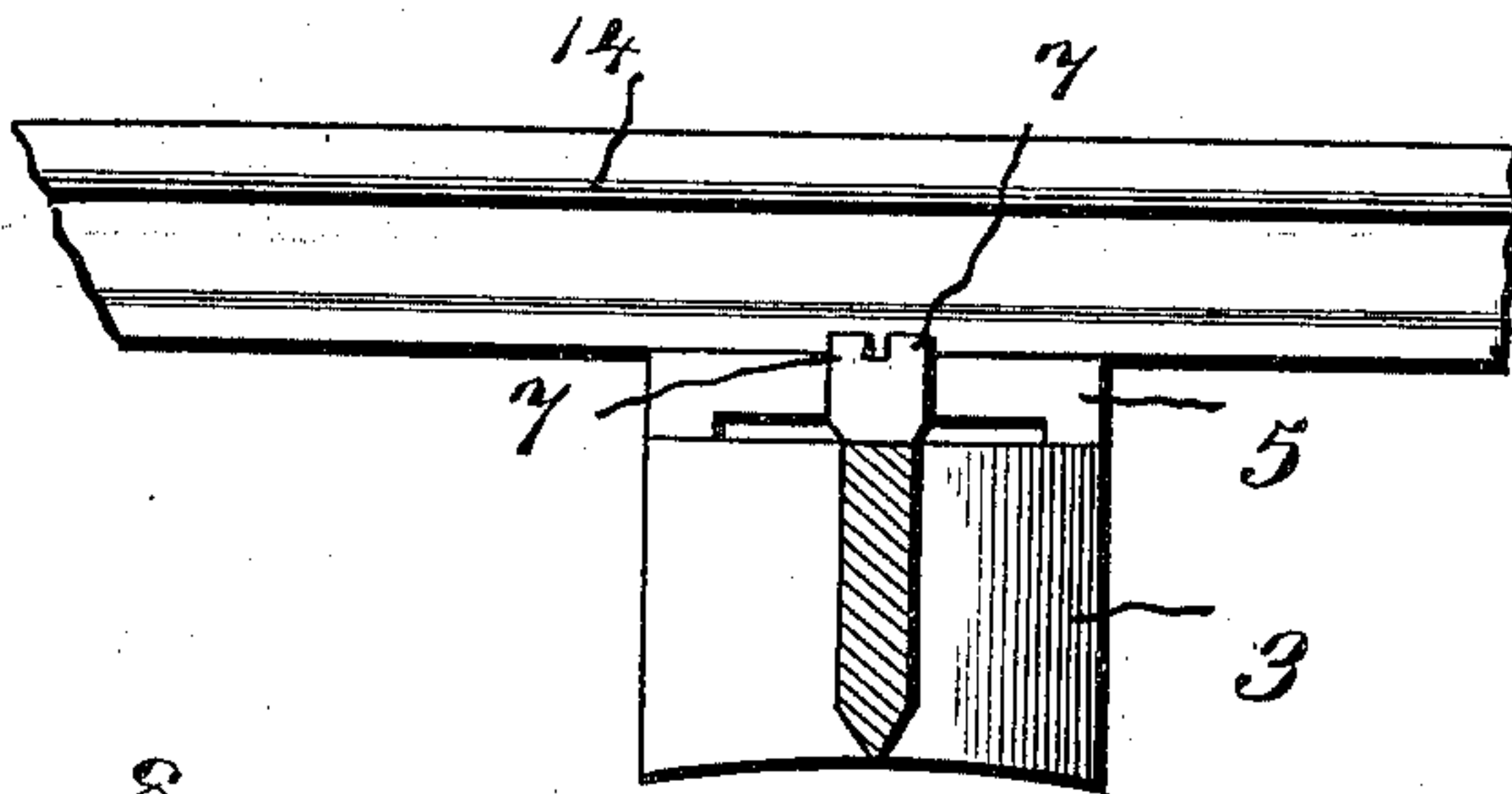


Fig. 3.

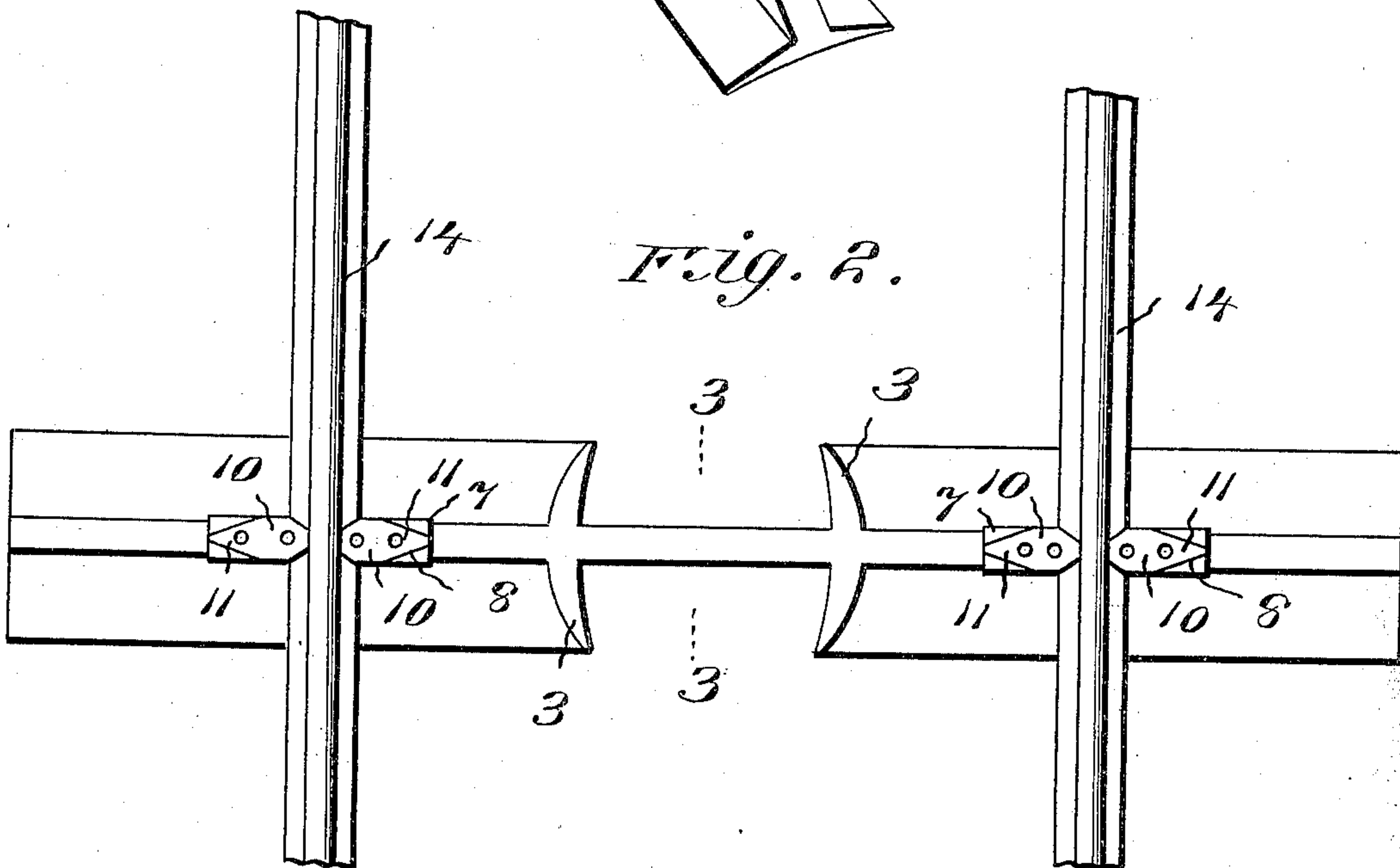


Fig. 2.

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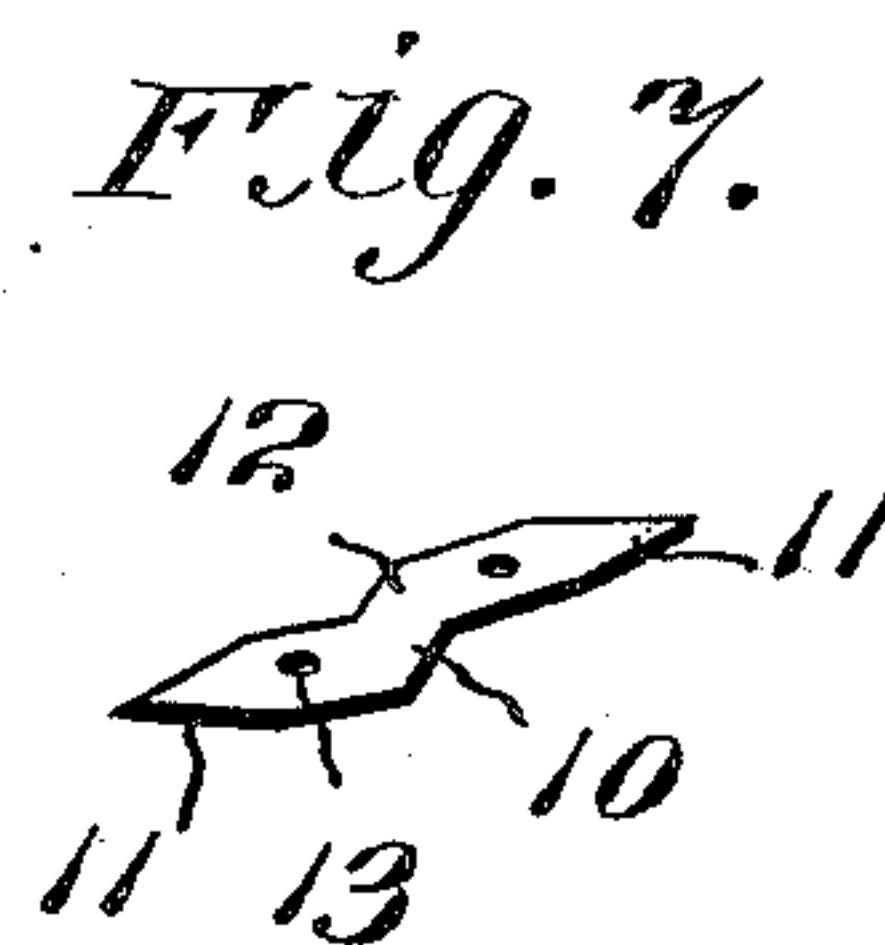
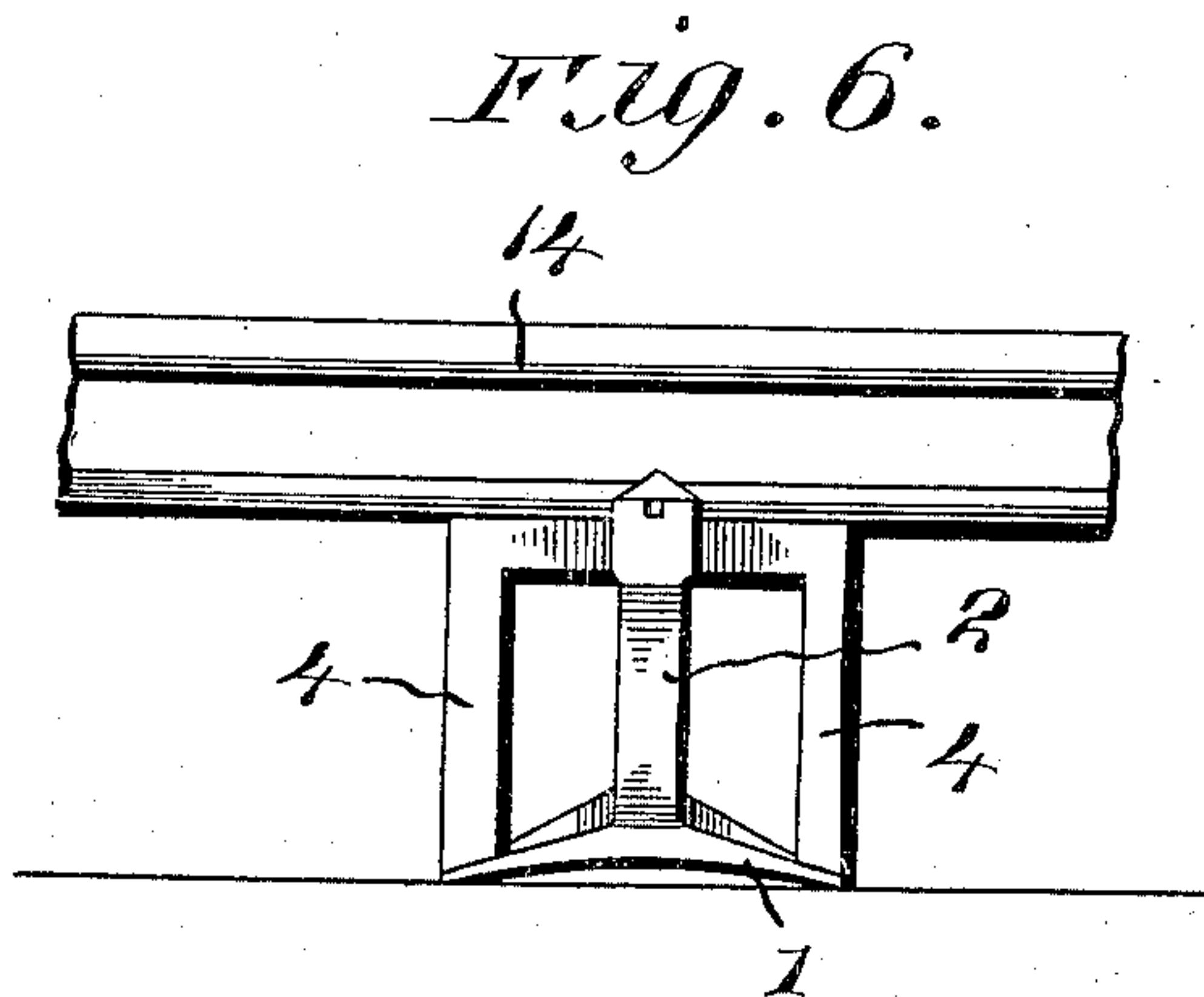
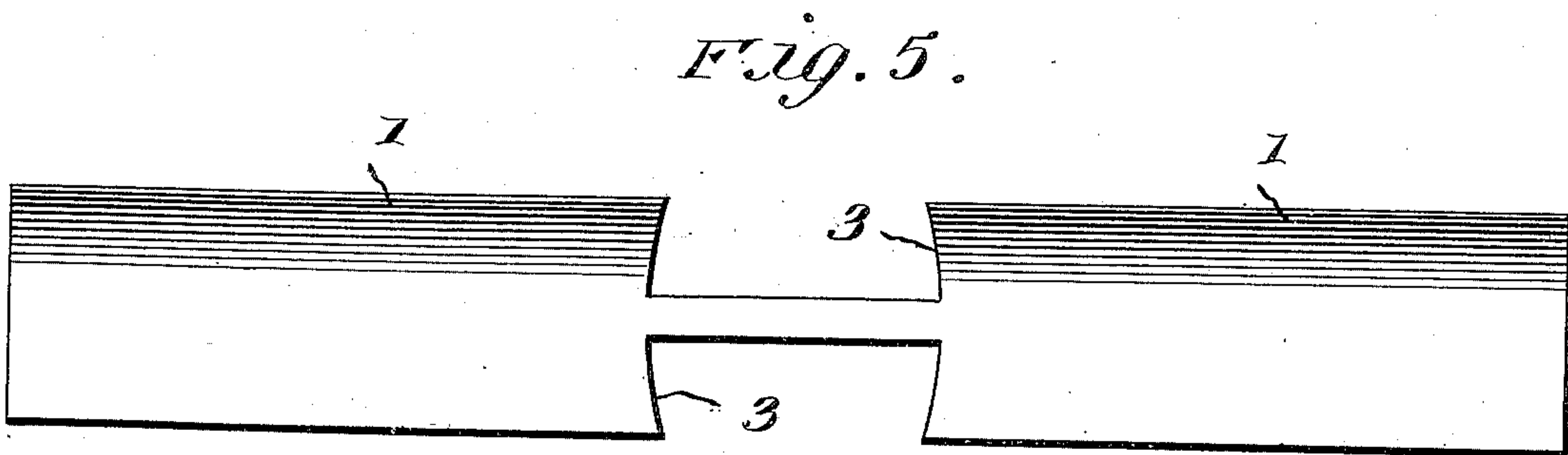
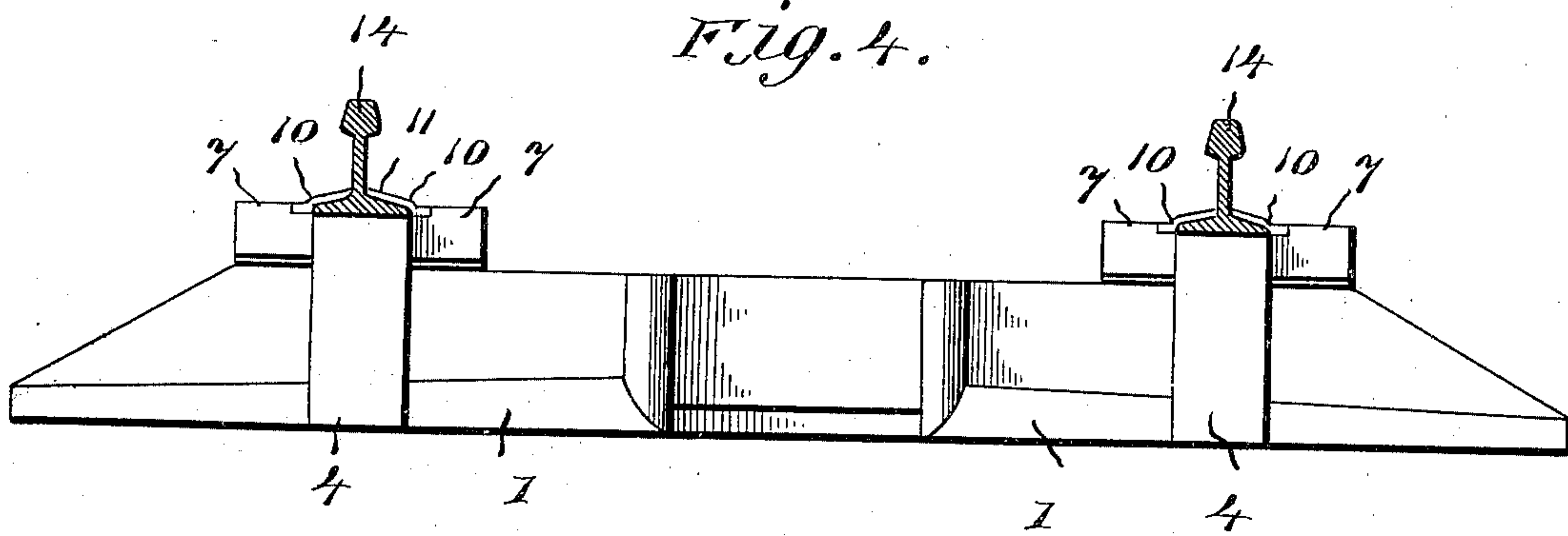
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UNITED STATES PATENT OFFICE.

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RAILROAD-TIE.

SPECIFICATION forming part of Letters Patent No. 755,493, dated March 22, 1904.

Application filed November 4, 1903. Serial No. 179,846. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL B. HOOVER, a citizen of the United States, residing at Roca, in the county of Lancaster and State of Nebraska, have invented new and useful Improvements in Railroad-Ties, of which the following is a specification.

My invention relates to new and useful improvements in rail-ties; and its object is to provide a metallic tie of simple and durable construction which is adapted to firmly fasten rails in position and prevent them from becoming accidentally displaced or moved out of alinement.

A further object is to provide a rail-tie which will be firmly held in place without the necessity of embedding it within the road-bed.

Another object is to provide a tie which will remain fixed in the position in which it is placed without the necessity of employing securing means therefor.

With the above and other objects in view the invention consists in providing a metallic tie the end portions of which are angular in cross-section and provided with bases the lower faces of which are concaved, so as to bring the edges firmly in contact with the road-bed and prevent lateral movement of the tie. A longitudinally-extending integral bar is formed intermediate the end sections, and end walls or heads are formed integral with this bar, and the end sections and their adjoining faces are concaved, so as to prevent longitudinal movement of the tie. Recesses are formed in the upper face of the tie for the reception of securing-plates of novel construction, said plates being so shaped that they may be reversed and used when the working ends thereof become worn or injured.

The invention also consists in the further novel construction and combination of parts hereinafter fully described, illustrated, and claimed.

In the accompanying drawings, Figure 1 is a perspective view of my improved railroad-tie. Fig. 2 is a plan view thereof, showing rails secured thereon. Fig. 3 is a section on line 3 3, Fig. 2. Fig. 4 is a side elevation of the tie, showing a rail thereon in section. Fig.

5 is a bottom plan view of the tie. Fig. 6 is an end elevation thereof. Fig. 7 is a detail view of one of the fastening-plates.

Referring to the figures by numerals of reference, 1 1 are the base-sections of the tie, the same being formed integral with a longitudinally-extending cross-bar 2, the ends of which are preferably inclined. This bar extends between the base-sections, and at the inner ends of these base-sections and at the sides of the bar are located concaved heads 3, which are adapted to bear upon the road-bed and prevent longitudinal movement of the tie. The base of the tie is concaved transversely, as shown in Figs. 3 and 6, whereby the side edges thereof are caused to bear firmly upon the road-bed and prevent lateral movement of the tie. Arranged upon each base-section 1 are standards 4, which extend upward from and are integral with the edges of the base portions and are formed at the ends of a cross-bar 5, which is integral with the longitudinally-extending bar 2, hereinbefore referred to. This cross-bar 5 has oppositely-projecting arms 6 integral therewith and with the bar 2, and arranged at the outer corners of the arms are angular lugs 7, which form V-shaped recesses 8 therebetween. Apertures 9 are formed in the bottom walls of these recesses for the reception of bolts or other suitable securing devices adapted to be inserted through fastening-plates 10. These plates, as illustrated in Fig. 7, are each formed in a single piece of metal comprising oppositely-extending similar V-shaped portions 11, having an intermediate right-angular portion 12. Apertures 13 are formed within each of the parts 11 of the plate for the reception of the bolts before referred to.

In using the ties the same are placed at desired intervals upon the road-bed, and the edges of the base thereof will firmly engage said road-bed and prevent accidental displacement of the ties. The cross-bars 5 are spaced apart a distance equal to the proper distance between the railway-rails 14, and after the ties have been placed in suitable positions the rails are disposed upon the cross-bars 5, and the plates 10 are then inserted in the recesses

8, with their inner ends overlapping the base-flanges of the rails. These plates are then secured by means of bolts or other suitable devices, and the rails will therefore be securely fastened in position. Should the rail-engaging ends of the plates become worn or injured, they can be readily detached and reversed. By constructing ties in the manner herein described the road-bed can be readily drained, and it is unnecessary to embed the ties for the purpose of anchoring them, as the peculiar construction of the bases serves to securely retain the ties in proper position.

In the foregoing description I have shown the preferred form of my invention; but I do not limit myself thereto, as I am aware that modifications may be made therein without departing from the spirit or sacrificing any of the advantages thereof, and I therefore reserve the right to make such changes as fairly fall within the scope of my invention.

Having thus fully described the invention, what is claimed as new is—

1. A railway-tie formed in a single piece of metal and comprising oppositely - arranged similar base portions having concaved lower faces, and integral longitudinally-extending bars upon the base portions and extending therebetween, concaved heads at the inner ends of the base portions, and rail-securing means upon the longitudinally-extending bars.

2. A railway-tie formed in a single piece of metal and comprising oppositely - arranged similar base portions and having concaved lower faces, a longitudinally-extending bar integral with the base portions and extending

therebetween, oppositely - disposed similar heads at the inner ends of the base portions and having concaved inner faces, a cross-bar upon each base portion, and means for securing a rail to each cross-bar.

3. A railway-tie formed in a single piece of metal and comprising oppositely - arranged similar base portions having concaved lower faces, a longitudinally-extending bar integral with the base portions and extending therebetween, oppositely-disposed similar heads at the inner ends of the base portions and at opposite sides of the bar, said heads having concaved inner faces, a cross-bar upon each base portion, recessed arms integral therewith, and rail-engaging plates detachably secured within the arms.

4. A railway-tie formed in a single piece of metal and comprising oppositely - arranged similar base portions having concaved lower faces, a longitudinally-extending bar integral therewith and extending between the base portions, concaved heads at the inner ends of the base portions and projecting from the sides of the bar, standards upon the base portions and integral therewith, cross-bars upon the standards and integral therewith and with the base portions, oppositely - extending recessed arms integral with the cross-bars, and reversible rail-engaging plates detachably secured within the recessed arms.

SAMUEL B. HOOVER.

Attest:

ARNOLD EGGER,
CASPER MARTIN.