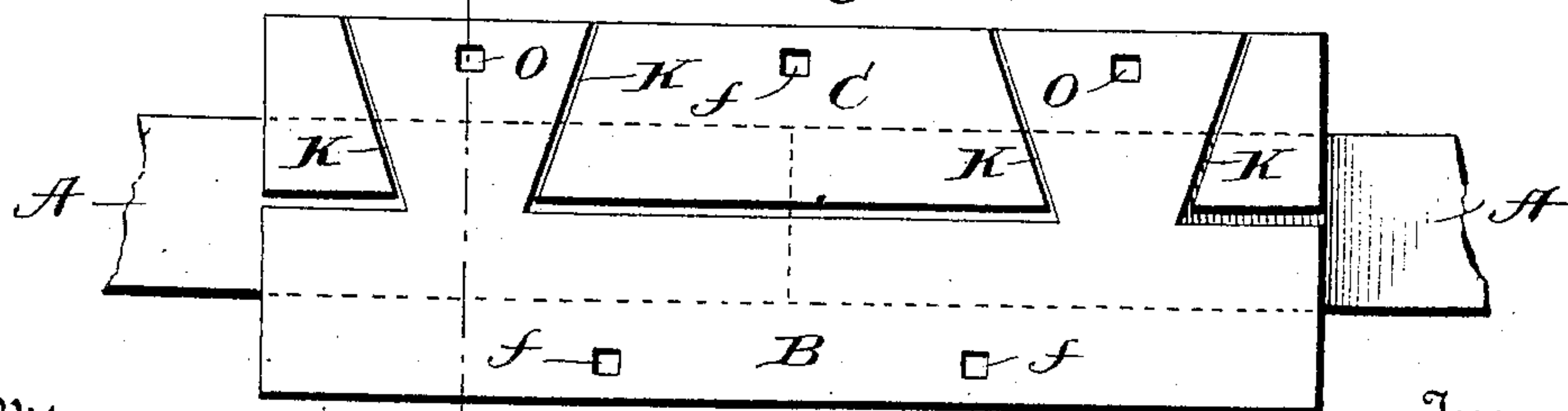
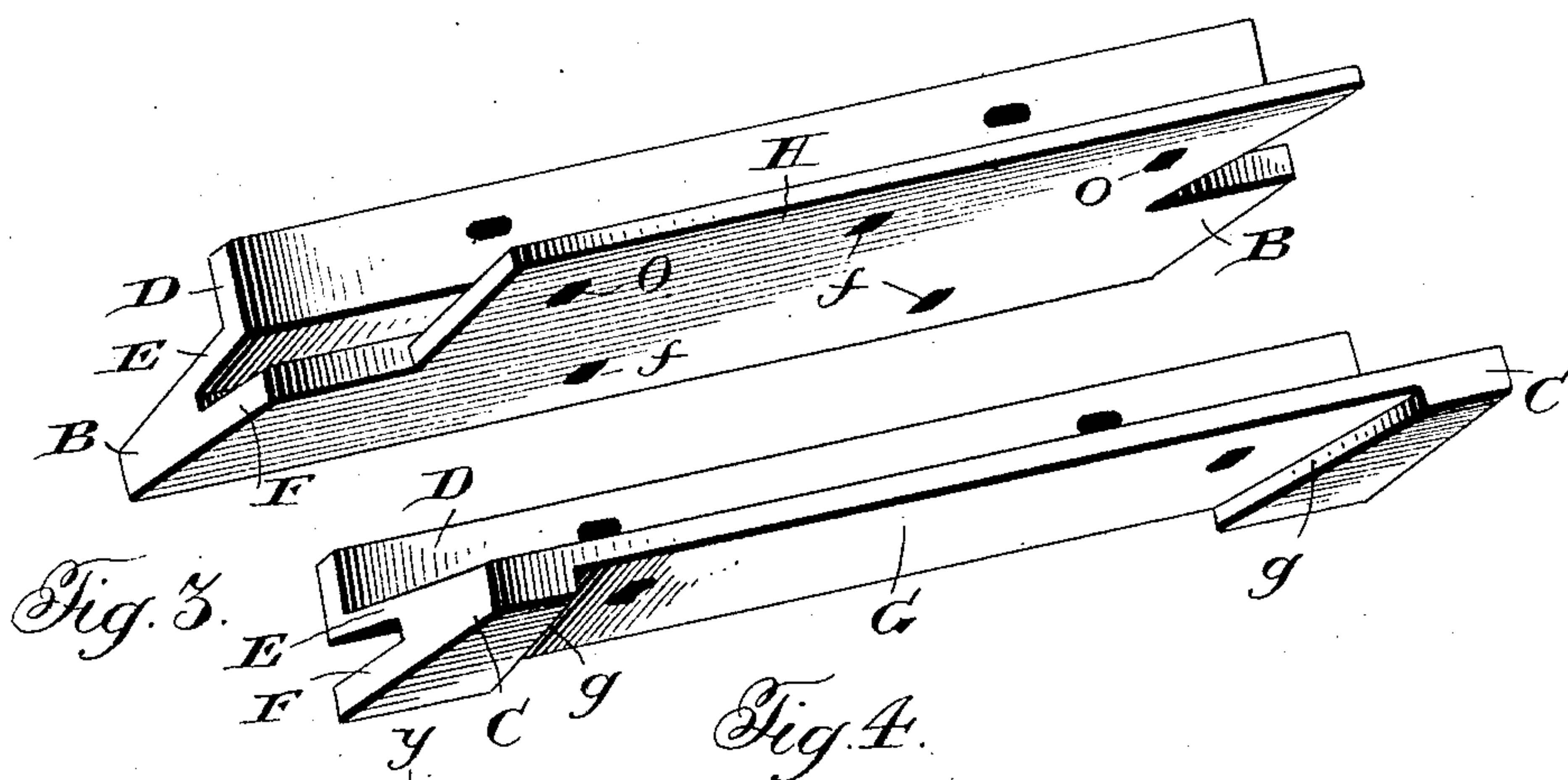
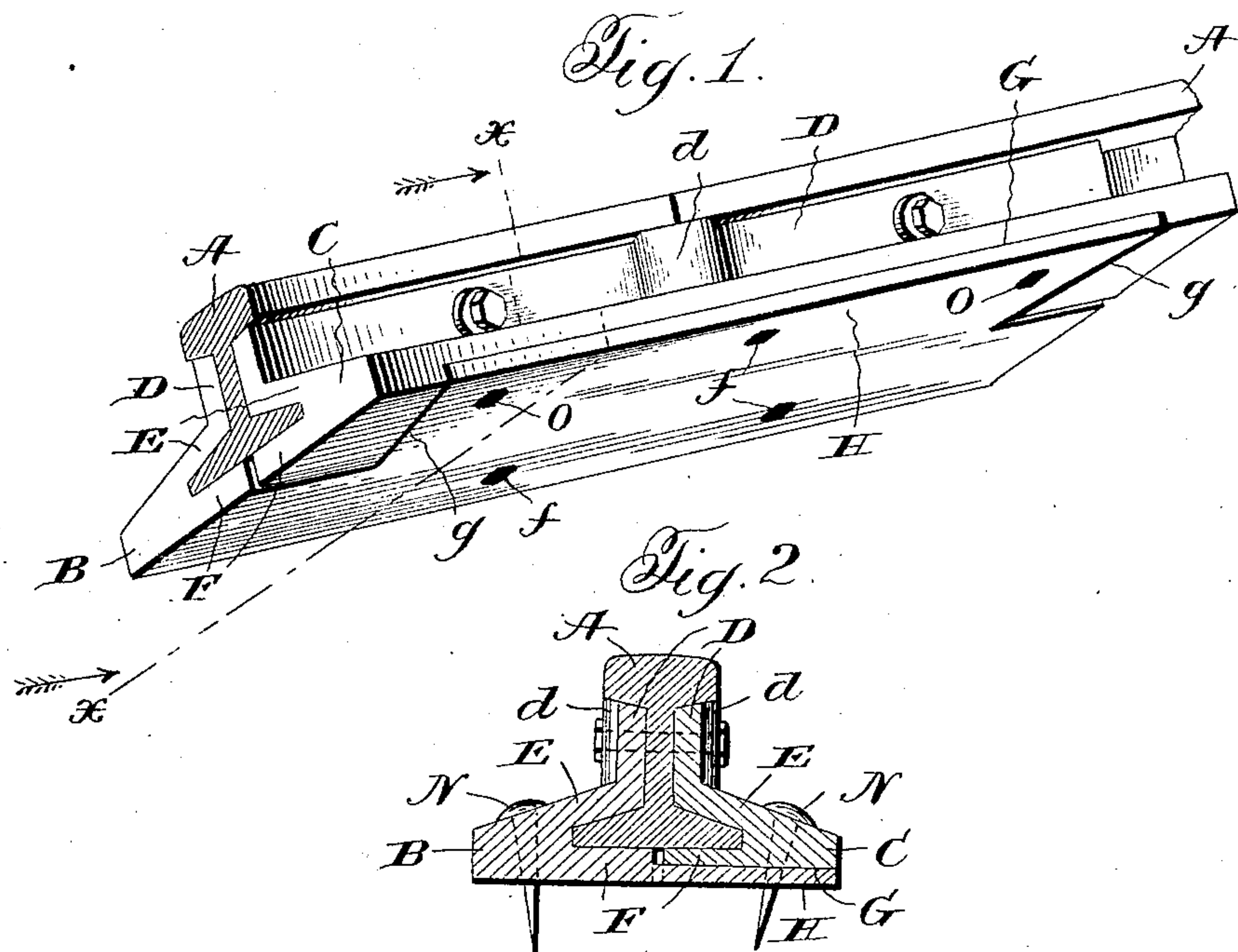


J. S. WEBB.
COMBINED RAIL JOINT AND CHAIR.

APPLICATION FILED JULY 20, 1904.

2 SHEETS—SHEET 1.



Witnesses:

Jas E Hutchinson
Mortimer Knepper

Inventor:

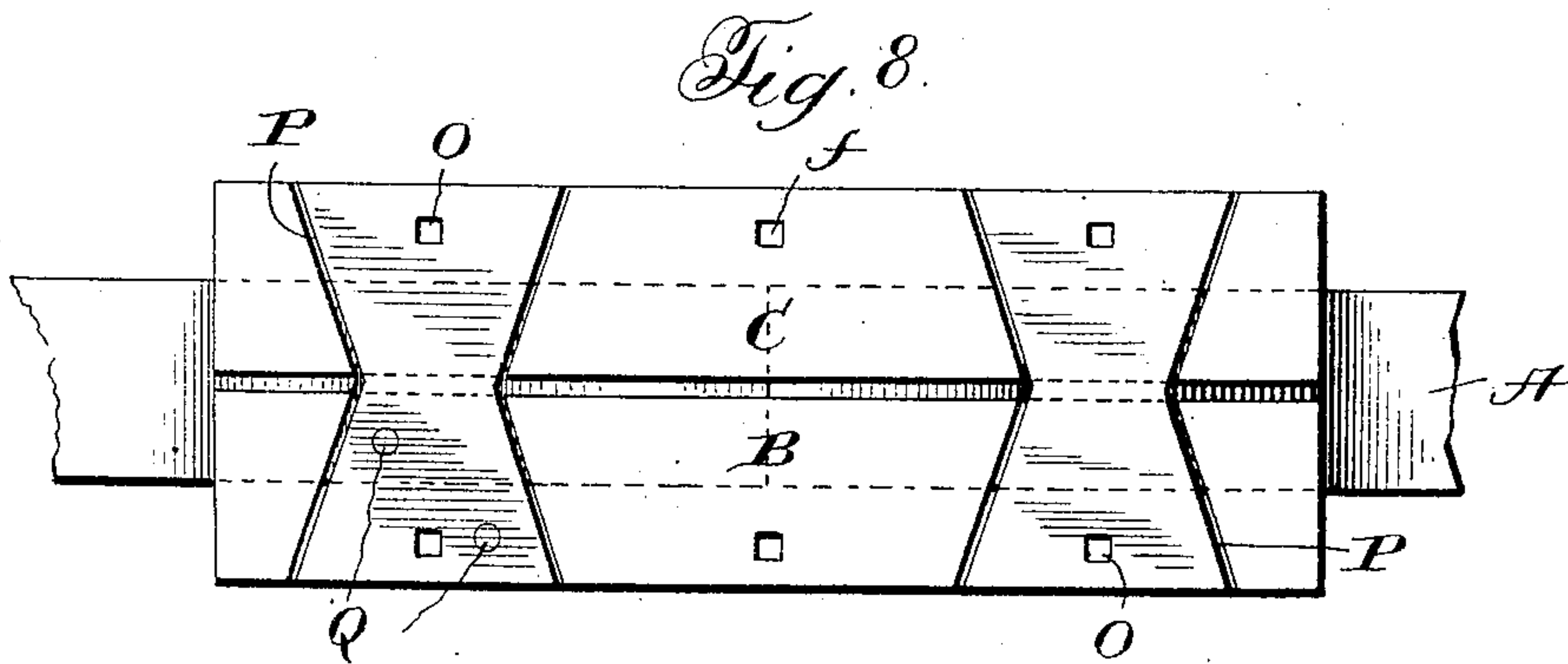
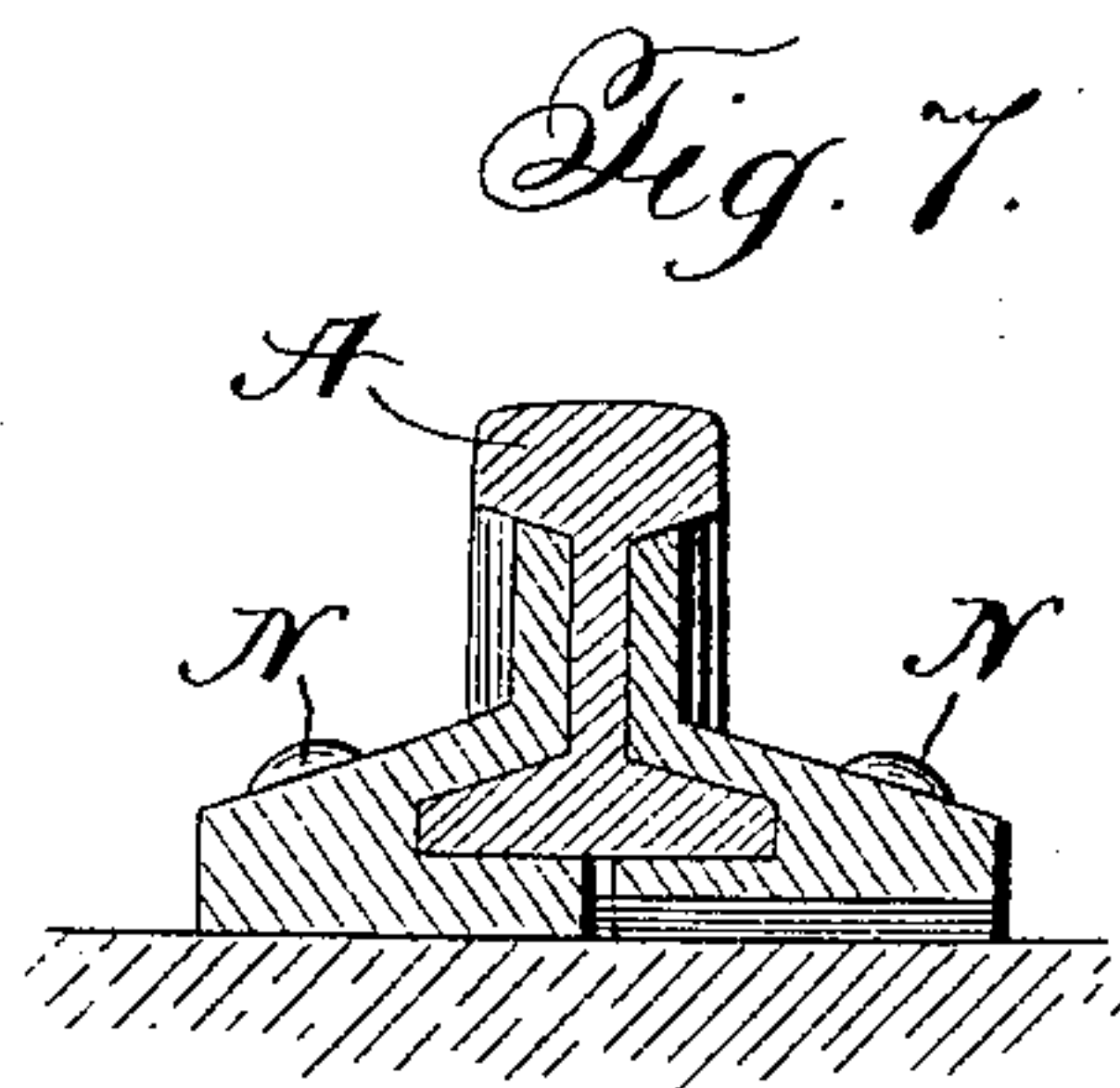
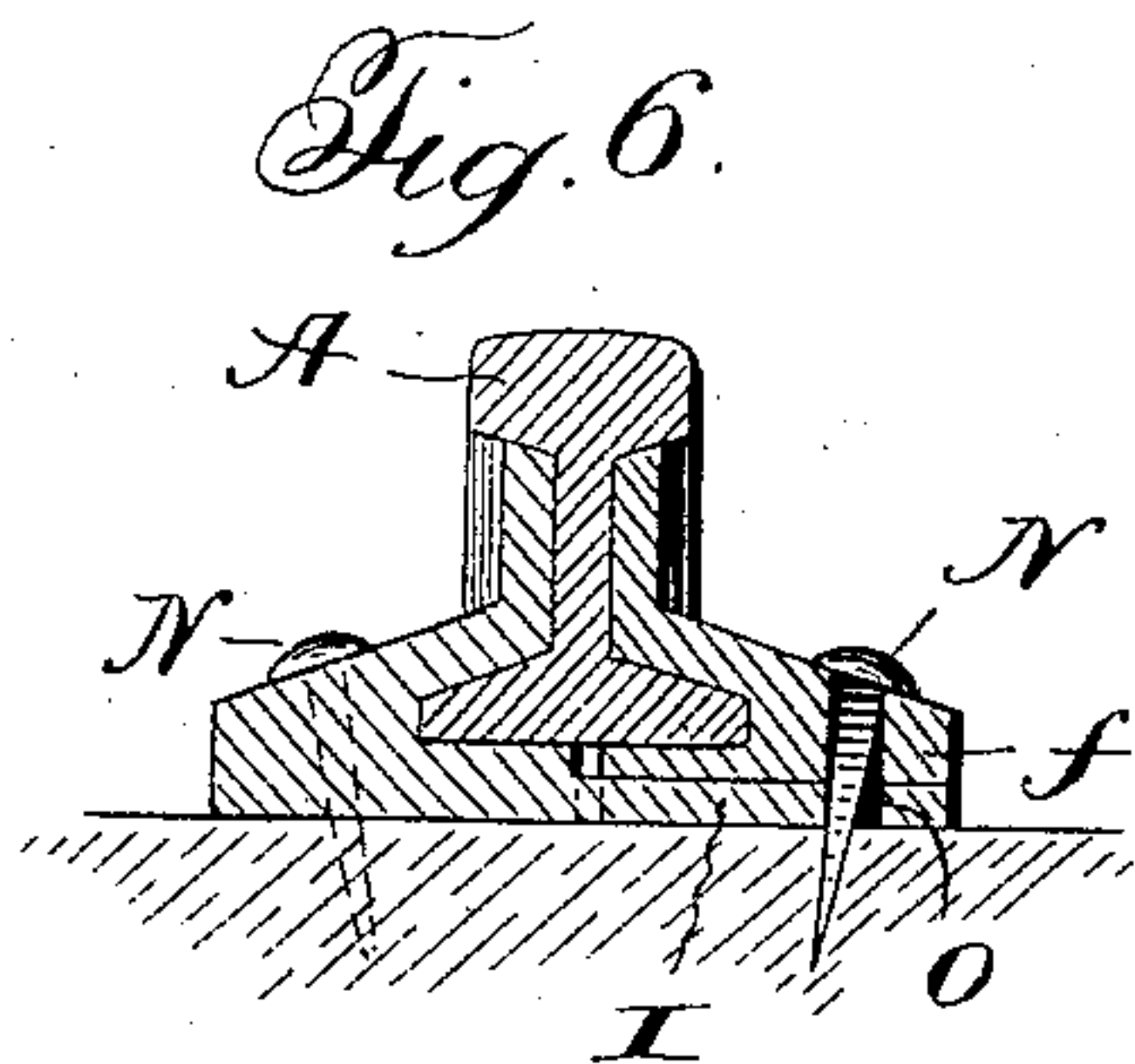
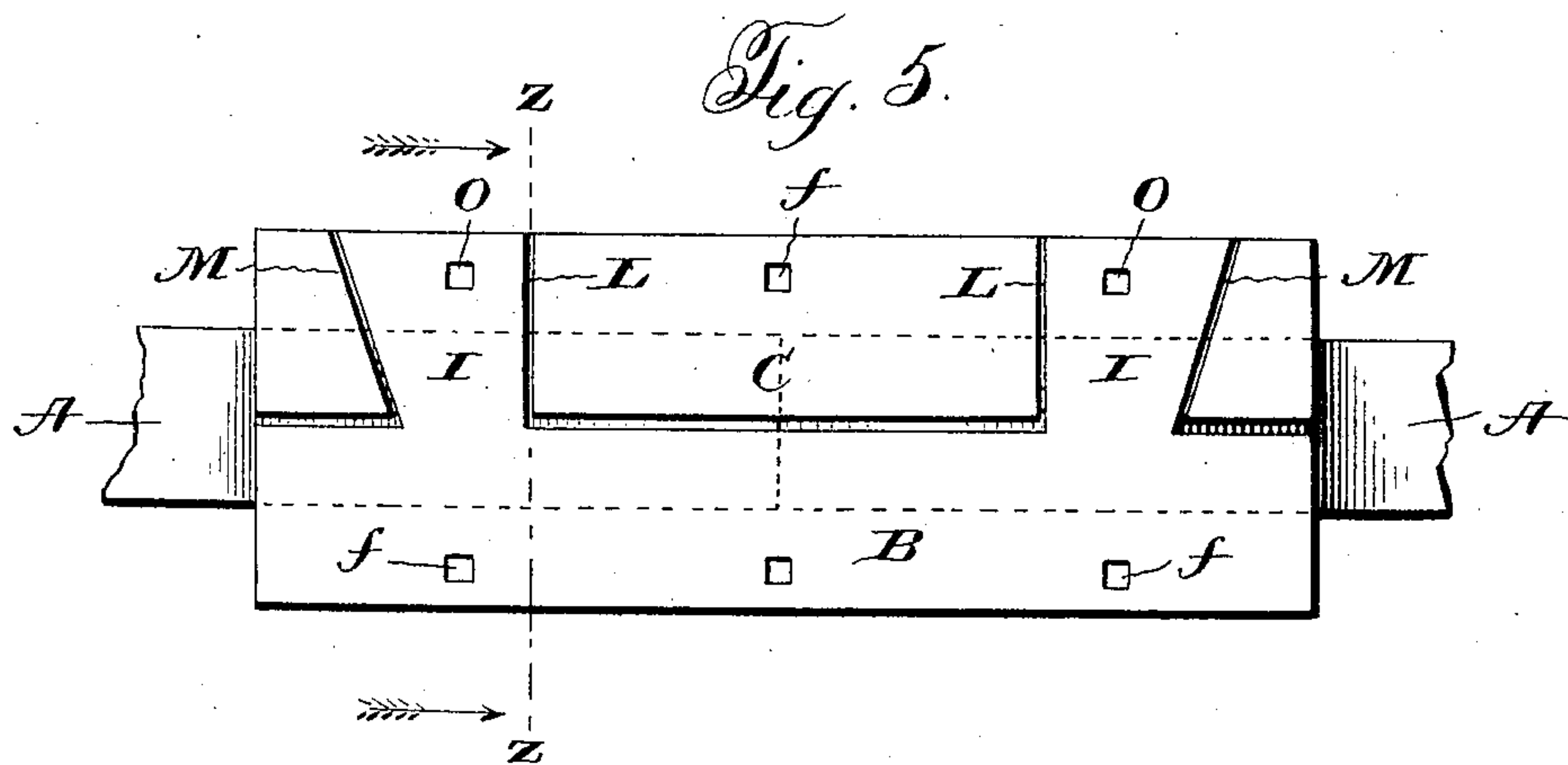
John S. Webb,

By *Wm. W. Milam* Attorneys

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2 SHEETS—SHEET 2.



Witnesses
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UNITED STATES PATENT OFFICE.

JOHN S. WEBB, OF DISPUTANTA, VIRGINIA.

COMBINED RAIL JOINT AND CHAIR.

SPECIFICATION forming part of Letters Patent No. 785,782, dated March 28, 1905.

Application filed July 20, 1904. Serial No. 217,377.

To all whom it may concern:

Be it known that I, JOHN S. WEBB, a citizen of the United States, residing at Disputanta, in the county of Prince George and State of Virginia, have invented certain new and useful Improvements in a Combined Rail Joint and Chair, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to improvements in combined rail joints and chairs, and has for its primary object the provision of a device of this character which will be composed of the fewest possible parts consistent with the desired ends sought to be attained in a successful joint and chair.

The invention comprehends a combined joint and chair comprising separable members having provision for their interlocking at the base, whereby a flat uninterrupted bottom bearing surface or base is secured.

A convenient embodiment of the invention embraces two members each provided with a base portion, one of said members having a receiving depression or recess, while the other has a complementary projecting portion arranged to engage said recess, said recess extending substantially transversely across the member in which it is formed and the projection being of substantially the same width, whereby the connecting projection and its member alone form an unbroken base or chair or transverse braces therefor, affording a flat bearing-surface and abundantly resisting the tendency of the sections to break downwardly at their meeting edges.

The novel details in the construction and arrangement of the several parts of the invention will be apparent from the detailed description hereinafter when read in connection with the accompanying drawings, forming part hereof, and wherein several embodiments of the invention are illustrated.

In the drawings, Figure 1 is a perspective view of the preferred embodiment of my invention, the parts being shown in inverted position and portions being broken away. Fig. 2 is a cross-sectional view on the line xx of Fig. 1. Fig. 3 is a view similar to Fig. 1, showing the rail-sections removed and the

parts of the joint separated. Fig. 4 is a bottom plan view of a device constituting another embodiment of the invention. Fig. 5 is a like view of a still further form, and Figs. 6 and 7 are respectively transverse sectional views on the lines yy and zz of Figs. 4 and 5. Fig. 8 is an additional modification.

Referring more specifically to the drawings, wherein like reference characters refer to corresponding parts in the several series of views, and first with reference to Figs. 1, 2, and 3, A designates the meeting ends of rail-sections desired to be joined, and B and C the two members of my novel combined joint and chair. These members B and C each have fish-plates D, portions E, designed to overlies the flanges of the rail-sections, and base portions F, forming, with the parts to be now described, the rail-chair. In the member C, I form a depressed portion or recess extending substantially the entire length of the base thereof, the same being represented at G and having outwardly-diverging walls g . This depression or recess preferably extends but partially through its base portion, as shown, whereby a continuous flat upper surface for contact with the bottom of the rail is preserved.

H is a projecting portion flush with the bottom surface of the member B and of substantially the same thickness as the depth of the depression G. This projecting portion is conveniently of dovetail configuration, whereby the same when seated in the depression G constitutes an efficient key or lock for preventing undue separation of the sections B and C or the creeping of either longitudinally of the other. It is to be understood, however, that these parts do not have what may be termed a "tight" or "close" fit therebetween, but are relatively loosely associated to allow for the usual expansion and contraction of the metal.

An important feature of the invention is the width of the projection or key H and the cooperating depression or recess G, it being noted that these extend completely across the member in which the depression is formed and that the bottom surface of the key or projection is flush with the bottom surface of the member or section C. By this arrangement it will be seen that the bottom of the chair has

a flat uninterrupted bearing-surface throughout its extent, and a peculiar advantage incident to the relatively wide recess and key or projection is that the tendency of the sections B and C to break downwardly at their meeting edges beneath the vertical axis of the rail-section is abundantly resisted, which is not the case where the interlocking of the two sections of a joint is by means of short or narrow projections, which are liable to break or shear off owing to the vibration created by traffic over the rails.

In the form of device just above described the projection or key H, together with the bottom surface of the member B, practically constitute the base or chair of the device; but it is not my intention to be restricted to this special idea, because in some instances the interlocking recess and projection would not be of such great length; but a sufficient connecting of the parts may be afforded through the medium of a series, conveniently one at each end of the device, of recesses and projections, which in such cases constitute continuous transverse braces for the chair. The forms of projections and recesses may be quite different and in the main discretionary, according to the uses to which the particular joints are to be put.

In Figs. 4 and 6 the projections represented at I and recesses K are dovetail in shape, after the manner of the connection shown in the first three figures. In the embodiment shown in Figs. 5 and 7, however, the recesses and projections each have one straight wall L and an inclined wall M.

In all of the forms it is obvious that although the members B and C are separable to a predetermined extent, nevertheless the beveled or inclined cooperating surfaces or edges of the recesses and projections positively lock the members against undue separation.

In all of the forms the fish-plates are bolted to the rail-sections in the ordinary manner, and the joint is secured in place by spikes N, passing through apertures F in the base portions of the members B and C and also through apertures O, formed in the several projections.

The fish-plates D have enlargements Z, centrally thereof, directly underlying the tread portions of the rails at their meeting ends to afford an additional brace or support for said ends.

Numerous changes and alterations may be made in the several structures disclosed herein without in the least departing from the spirit and scope of the invention. For example, I have thus far referred to the key projections as being formed with the member B of the joint; but it is apparent that the underlying principle of the invention will also be conserved should the projections or keys be independently formed and detachably connected with both of the members B and C through

the medium of interlocking engagements, such as dovetails and depressions P, or they may be initially formed independently and subsequently rigidly secured to one of the members, as indicated at Q, both of the foregoing structures being suggested in Fig. 8.

Having thus described the invention, what is claimed as new, and desired to be secured by Letters Patent, is—

1. A combined rail joint and chair comprising two oppositely-disposed rail-engaging members having base portions, one of said base portions having a receiving depression extending but partially therethrough and the other a cooperating projection, said depression and projection extending entirely transversely across the member having the recess, substantially as described.

2. A combined rail joint and chair comprising two oppositely-disposed rail-engaging members having base portions, one of said base portions having a dovetail projection and the other a cooperating depression, the inclined edges of said projection and depression being at the ends thereof.

3. A combined rail joint and chair comprising two oppositely-disposed rail-engaging members having base portions, one of said base portions having a receiving depression extending substantially transversely thereacross and for but a part of its length and the other a cooperating projection, one of the end edges of said depression and projection being inclined.

4. A combined rail joint and chair comprising two oppositely-disposed rail-engaging members having base portions, one of said base portions having a dovetail receiving depression extending substantially thereacross and the other a cooperating dovetail projection, said depression and projection being of a length substantially that of the rail-engaging members and having their inclined edges at their sides.

5. A combined rail joint and chair comprising two oppositely-disposed rail-engaging members having base portions, said base portions having broad flat interlocking members extending entirely transversely thereacross.

6. A combined rail joint and chair comprising two oppositely-disposed rail-engaging members having base portions, one of said base portions having a receiving depression extending but partially therethrough, a cooperating projection operatively associated with said other base portion and adapted to fit said depression, said depression and projection extending entirely transversely across the member having the depression.

7. A combined rail joint and chair comprising two oppositely-disposed rail-engaging members having base portions, one of said base portions having a receiving depression extending but partially therethrough one of the end edges of which is inclined, and a co-

operating projection operatively associated with the other of said base portions and adapted to engage said depression.

8. A combined rail joint and chair comprising two oppositely-disposed rail-engaging members having base portions, one of said base portions having a receiving depression extending entirely thereacross, and a cooperating projection operatively associated with the other of said base portions, said projection and the member having the depression being provided with aligned spike-apertures at their free edges.

9. A combined rail joint and chair comprising two oppositely-disposed rail-engaging members having base portions, said base portions being provided with a broad flat side interlocking member arranged transversely thereof and but partially therethrough.

10. A combined rail joint and chair comprising two oppositely-disposed rail-engaging members having base portions, one of said base portions having a receiving depression extending substantially thereacross and for but a part of its length, and a cooperating end interlocking projection operatively associated with the other of said base portions, said depression and projection being of a length substantially that of the rail-engaging members.

11. A combined rail joint and chair comprising two oppositely-disposed rail-engaging members having base portions, one of said base portions having a receiving depression extending for but a part of its length and the other a cooperating projection, said projection and the member having the depression being provided with cooperating instrumentalities whereby they may be secured in place and also having inclined interlocking end edges.

12. A combined rail joint and chair comprising two oppositely-disposed rail-engaging members having base portions, one of said base portions having a receiving depression extending but partially therethrough and for but a part of its length, and the other a cooperating projection, said depression and projection having interlocking end edges.

13. A combined rail joint and chair comprising two oppositely-disposed rail-engaging members having base portions, one of said base portions having a receiving depression extending but partially therethrough and for but a part of its length, and the other a cooperating projection, one of the end edges of said depression and projection being inclined.

14. A combined rail joint and chair comprising two oppositely-disposed rail-engaging members having base portions, one of said base portions having a dovetail receiving depression extending but partially therethrough and for but a part of its length, and the other a cooperating projection, the inclined edges of said depression and projection being at their ends.

15. A combined rail joint and chair comprising two oppositely-disposed rail-engaging members having base portions, one of said base portions having a receiving depression extending substantially transversely thereacross and for but a part of its length, and the other a cooperating projection, one of the ends of said depression and projection being inclined.

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

JOHN S. WEBB.

Witnesses:

ISABEL BURCH,
JAS. H. MILANS.