

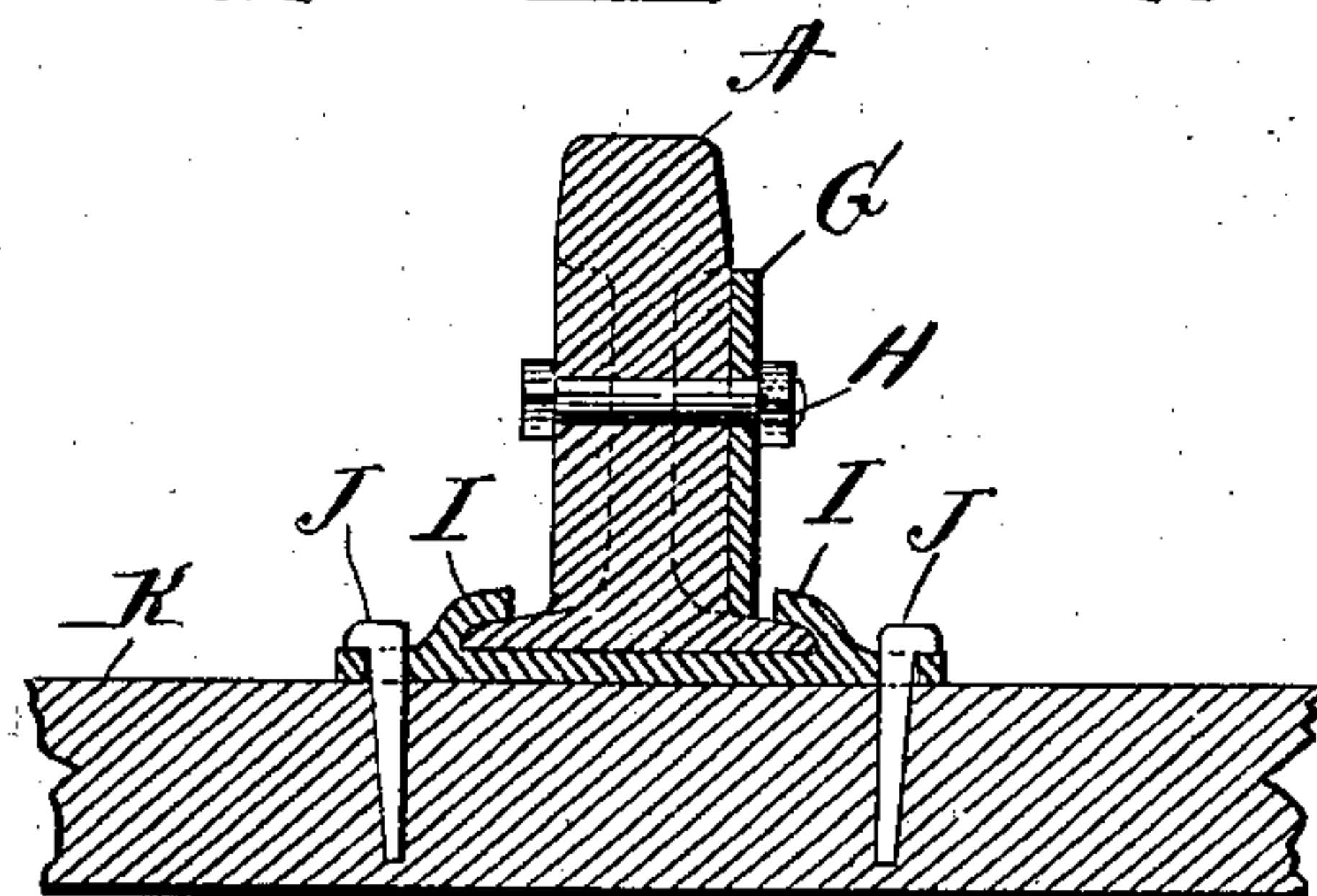
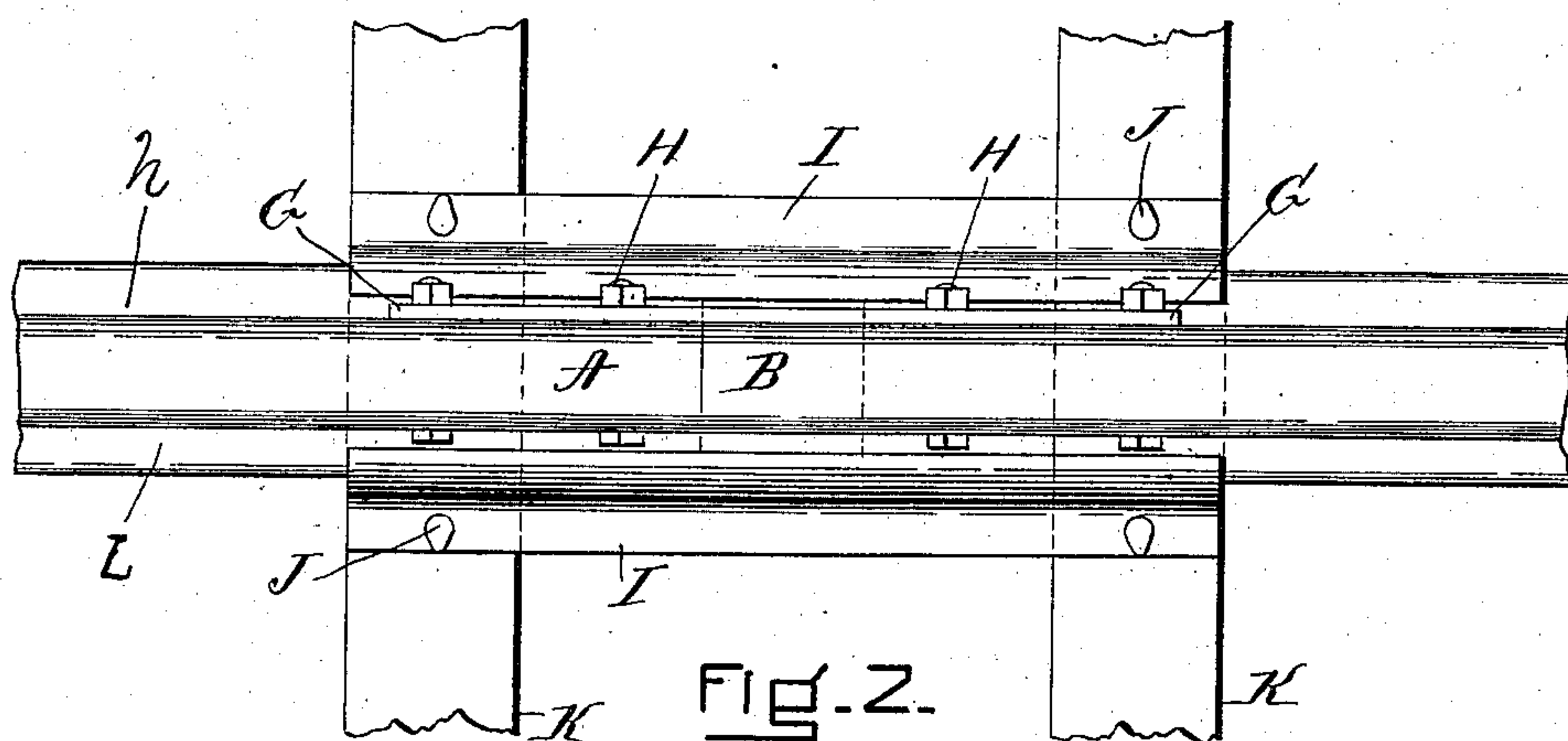
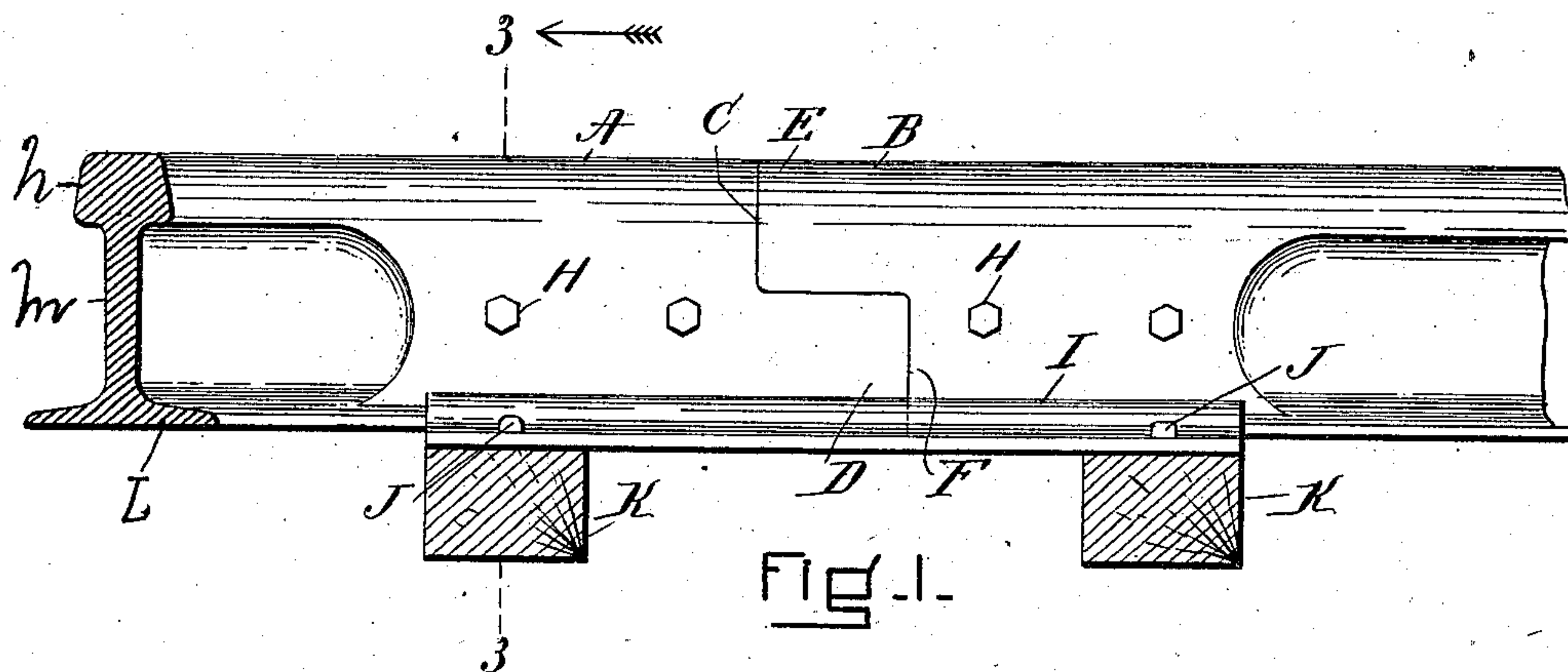
No. 726,798.

PATENTED APR. 28, 1903.

J. P. A. HANLON.
RAILWAY RAIL.

APPLICATION FILED JAN. 23, 1903.

NO MODEL.



WITNESSES=
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Fig. 3.

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JOSEPH P. A. HANLON, OF SOMERVILLE, MASSACHUSETTS.

RAILWAY-RAIL.

SPECIFICATION forming part of Letters Patent No. 726,798, dated April 28, 1903.

Application filed January 23, 1903. Serial No. 140,298. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH P. A. HANLON, a subject of the King of Great Britain, residing at Somerville, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Railway-Rails, of which the following is a description sufficiently full, clear, and exact to enable others skilled in the art to which the invention appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

15 This invention relates to an improved railroad-rail joint, the object of the invention being to provide a strong and durable joint for the adjacent ends of two railroad-rails; and, further, the object is to provide a joint
20 whereby the adjacent ends of two rails may be easily joined together.

The invention consists, in a device of the character described, of two rails having their ends formed and connected together as hereinafter set forth, and particularly pointed out
25 in the claims.

Referring to the drawings, Figure 1 is a side elevation of a portion of two rails constructed in accordance with my invention, together
30 with a tie-plate and ties. Fig. 2 is a plan view of the parts illustrated in Fig. 1, together with a fish-plate. Fig. 3 is a transverse section taken on line 3 3 of Fig. 1.

Like letters refer to like parts throughout
35 the several views of the drawings.

In the drawings, A and B represent portions of two rails constructed in accordance with my invention, in which the rail throughout the greater part of its length is constructed in the ordinary manner with a flange L,
40 web M, and top or tread N. The ends of the rails A and B, however, are both constructed as shown in Figs. 1 and 3, with the rail of substantially the same width or thickness
45 from the flange to the tread thereof. The rail B is provided at its end with a projection E, integral with the upper half of said rail, forming a portion of the tread of said rail and extending transversely entirely thereacross,
50 being of the full thickness of the upper portion or tread of said rail. The rail A is also provided with a projection D, but upon its

lower half, integral therewith, and of the full thickness of the end of said rail. Said rail A is provided with a recess C, into which the
55 projection E upon the rail B projects and fits. The rail B is provided with a recess F, into which the projection D upon the rail A projects and fits.

It will be seen that each of the rails A and B is provided with a projection which extends longitudinally from the end thereof into the recess provided in the end of the adjacent rail and that together the projections E and D form a horizontal lap-joint. It will also be
60 seen and understood that the rails A and B both terminate in two vertical plane surfaces connected by a horizontal plane surface, said plane surfaces extending entirely thereacross.

The rails A and B are joined together by a
65 fish-plate G, fastened thereto by bolts H H. Said rails are supported beneath the lap-joint, hereinbefore described, by a chair I, said chair being fastened to the ties K by spikes J in a manner well known to those skilled in
75 the art.

It will be seen that rails constructed in accordance with my invention, as hereinbefore described, will form a very strong and durable joint which is easily connected when the
80 rails are being laid.

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

1. In a railroad-rail joint, two rails, each of
85 said rails provided at their ends with a projection and a recess, said projections and recesses extending transversely entirely across their respective rails, one of said projections integral with the upper half of one of said
90 rails and forming a portion of the tread thereof, the other of said projections integral with the lower half of the other of said rails, said projections each extending longitudinally from the end of its respective rail into the recess in the adjacent end of the other of said
95 rails and forming together a horizontal lap-joint.

2. In a railroad-rail joint, two rails, each of
100 said rails provided at their adjacent ends with a projection and a recess extending transversely entirely thereacross, said rails each terminating in two vertical plane surfaces connected by a horizontal plane surface, said

plane surfaces extending entirely thereacross, one of said projections integral with the upper half of one of said rails and forming a portion of the tread thereof, the other of said
5 projections integral with the lower half of the other of said rails, said projections each extending longitudinally from the end of its respective rail into the recess in the adjacent end of the other of said rails and forming together a horizontal lap-joint.

3. In a railroad-rail joint, two rails, each of said rails, at their ends, being of substantially an equal width from the flange to the tread thereof, and each provided at their adjacent ends with a projection and a recess extending transversely entirely thereacross, said rails each terminating in two vertical
15 plane surfaces connected by a horizontal plane surface, said plane surfaces extending entirely thereacross, one of said projections integral with the upper half of one of said rails and forming a portion of the tread thereof, the other of said projections integral with the lower half of the other of said rails, said
25 projections each extending longitudinally from the end of its respective rail into the recess in the adjacent end of the other of said rails and forming together a horizontal lap-joint.

30 4. In a railroad-rail joint, two rails, each of said rails, provided at their ends with a projection and a recess, said projections and recesses extending transversely entirely across their respective rails, one of said projections

integral with the upper half of one of said rails and forming a portion of the tread thereof, the other of said projections integral with the lower half of the other of said rails, said
35 projections each extending longitudinally from the end of its respective rail into the recess in the adjacent end of the other of said rails and forming together a horizontal lap-joint, and a fish-plate fast to and joining said rails together.

5. In a railroad-rail joint, two rails, each of said rails provided at their ends with a projection and a recess, said projections and recesses extending transversely entirely across their respective rails, one of said projections
45 integral with the upper half of one of said rails and forming a portion of the tread thereof, the other of said projections integral with the lower half of the other of said rails, said projections each extending longitudinally from the end of its respective rail into the recess in the adjacent end of the other of said
50 rails and forming together a horizontal lap-joint, and a chair upon which the adjacent ends of said rails rest.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, on this 21st day of January, A. D. 1903.

JOSEPH P. A. HANLON.

Witnesses:

GEORGE O. HANLON,
MARGARET G. MITCHELL.