

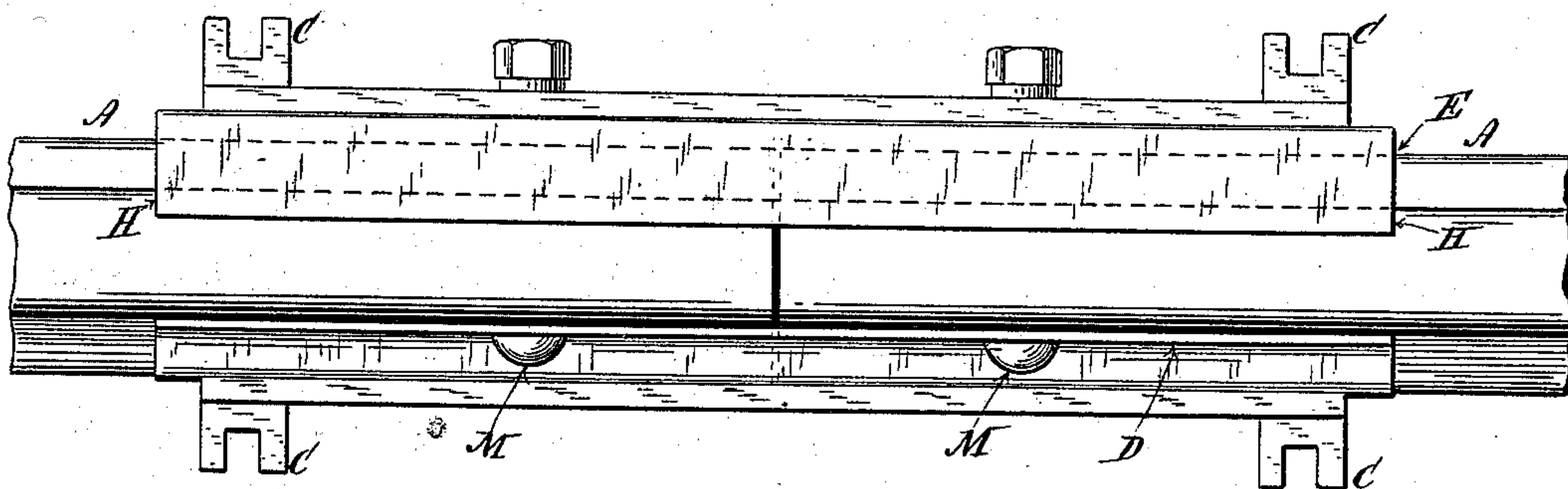
(No Model.)

G. A. WEBER.  
FISH PLATE AND CHAIR.

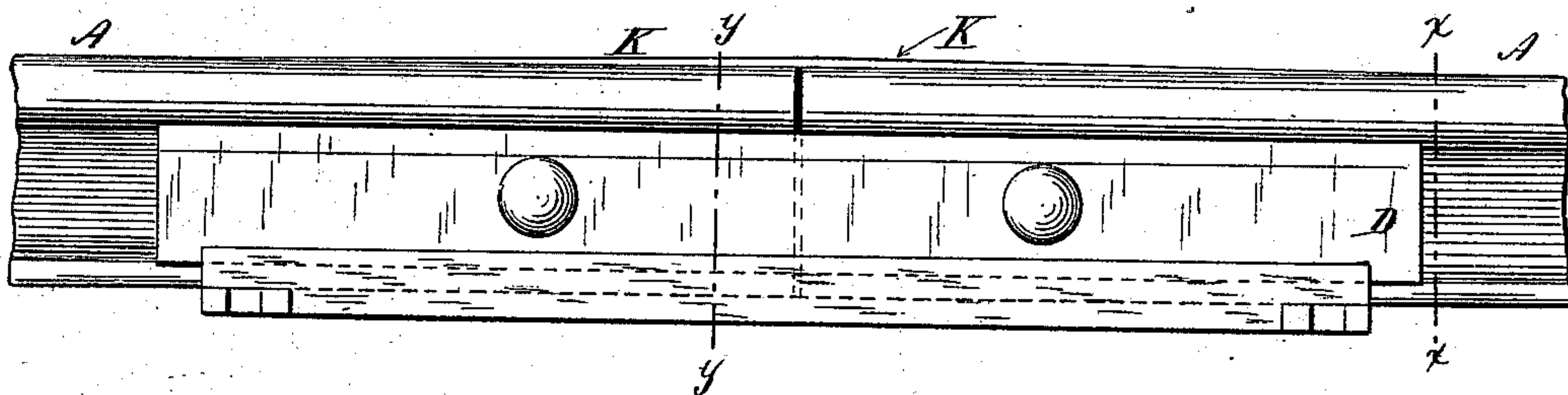
No. 402,371.

Patented Apr. 30, 1889.

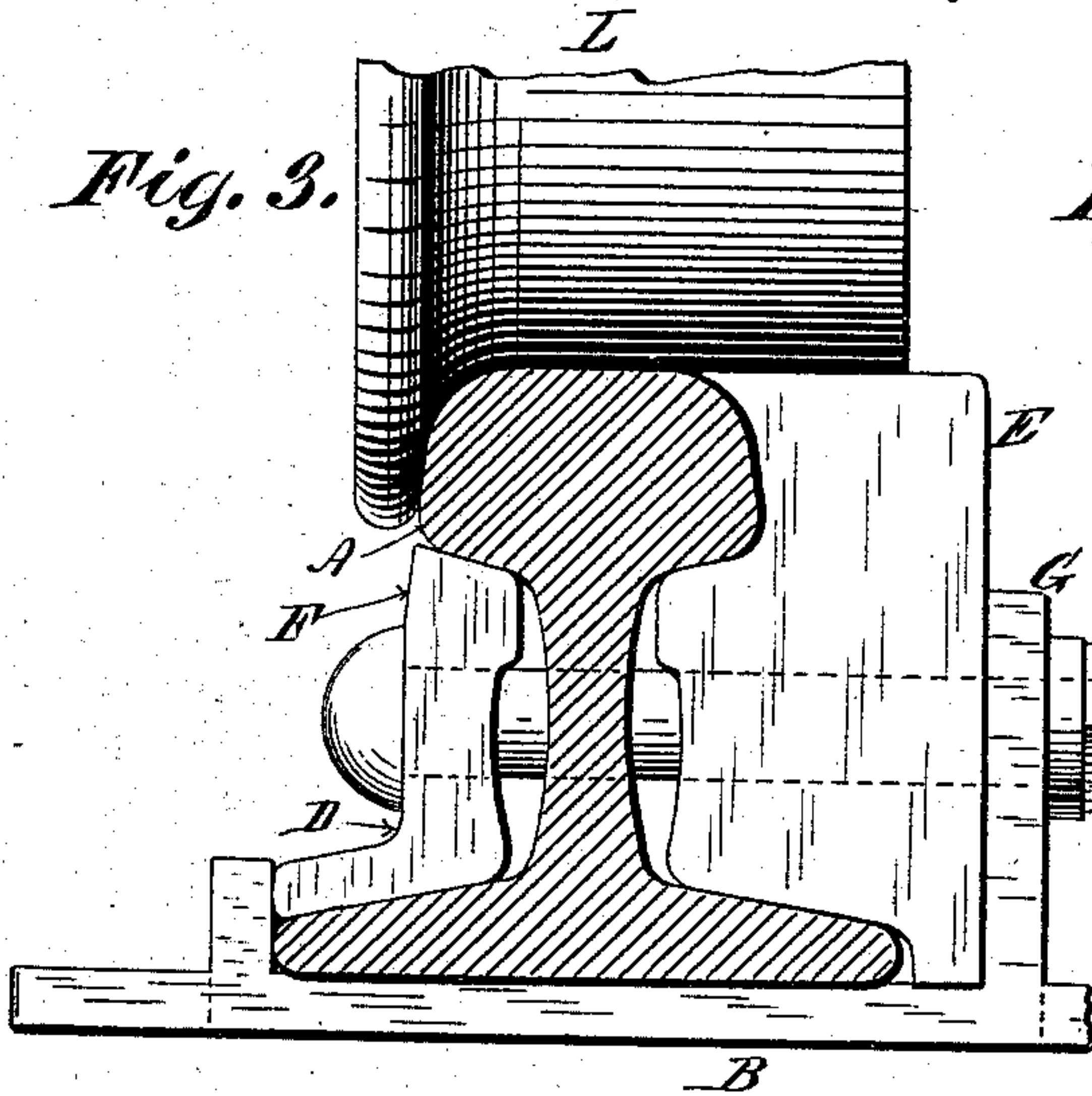
*Fig. 1.*



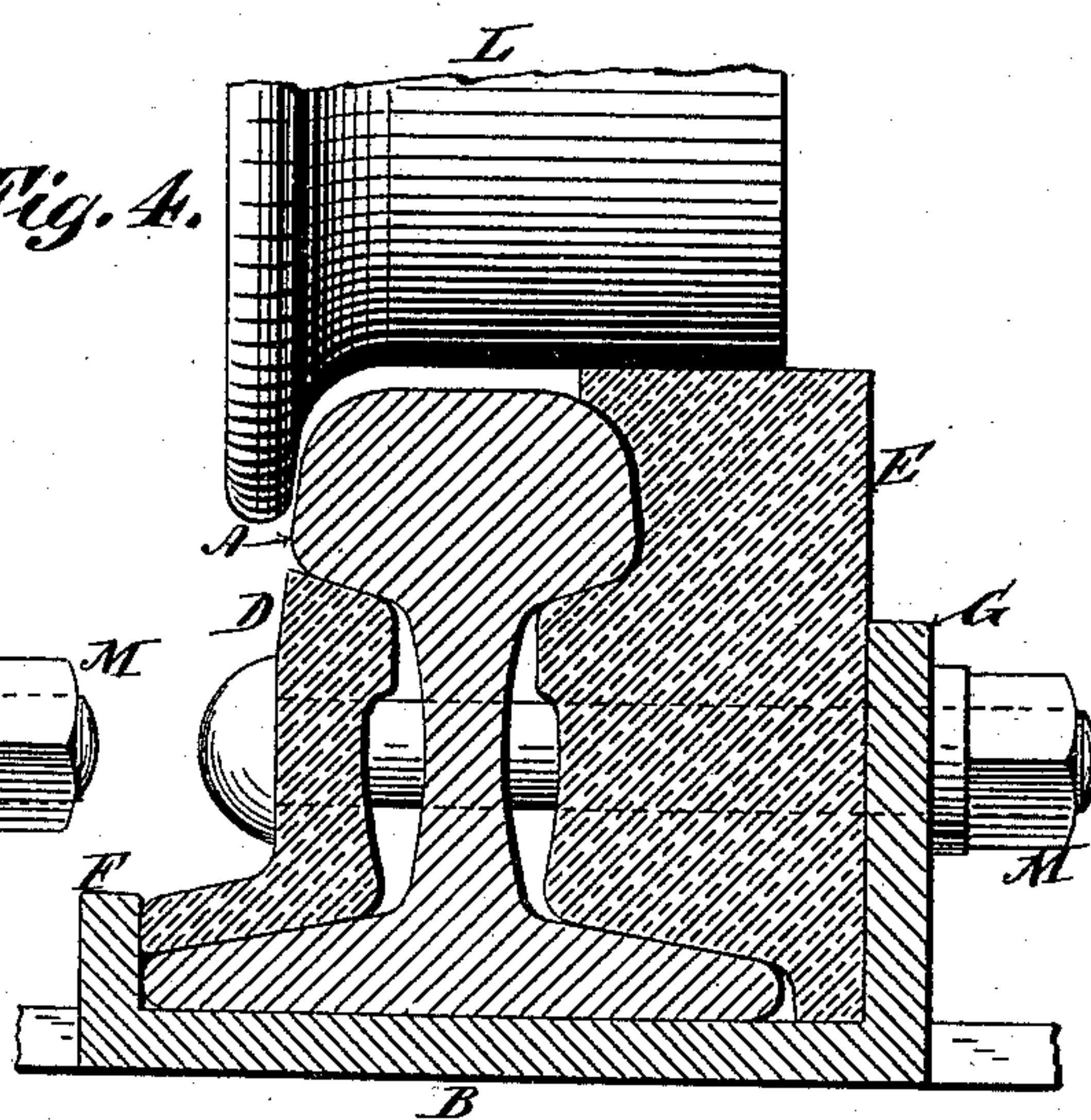
*Fig. 2.*



*Fig. 3.*



*Fig. 4.*



Witnesses:  
Wm Gardner  
Wm A. Pollock.

Inventor:  
Geo. A. Weber,  
By his Attorney,  
E. N. Dickerson.



# UNITED STATES PATENT OFFICE.

GEORGE A. WEBER, OF NEW YORK, N. Y., ASSIGNOR TO CAROLINE C. WEBER,  
OF SAME PLACE.

## FISH-PLATE AND CHAIR.

SPECIFICATION forming part of Letters Patent No. 402,371, dated April 30, 1889.

Application filed March 30, 1888. Serial No. 268,950. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE A. WEBER, of the city, county, and State of New York, have invented a new and useful Improvement in  
5 Combined Fish-Plates and Chairs for Railways, of which the following is a full, true, and exact description, reference being had to the accompanying drawings.

My invention relates to a new and useful  
10 improvement in mechanism for holding firmly together the ends of rails and preventing the jar or pounding ordinarily occurring between said rails and the wheels passing over them.

In my drawings, Figure 1 represents a top  
15 view of my invention; Fig. 2, a side view of the same; Fig. 3, a section through Fig. 2 on the line *x x*; Fig. 4, a section through Fig. 2 on the line *y y*.

A represents the rail, which may be of the  
20 usual form. These rails rest at their ends in the chairs B, consisting, generally, of plates of metal bent twice at right angles, and provided with ears C, for spiking the same to the ties.

25 The fish-plates consist of two portions, D and E, the general sectional shape of which is clearly shown in Figs. 3 and 4. The lower part of the plate D rests against the part F of the chair B, while the part G similarly aids in  
30 retaining the fish plate or block E in position. The ends of the rails are cut away, as at H, to allow of the substitution of the fish plate or block E for the wearing-surface of the rail at the joint, and this part E should project at  
35 the joint slightly above the rail. The general shape of the part E is inclined both ways from the ends to the center, as shown at K, the ends dropping to the level of or below the rail, while the center projects slightly above the  
40 rail. Of course this projection is exaggerated in the drawings, and should be simply sufficient to carry the wheels L free of the joint. In practice the wheels L will extend still far-

ther over the block E than is shown in the drawings.

The parts D E and chair B are bolted together by lock-bolts M, while the part E rests upon the chair and the rail at its lower part, as shown, thereby carrying the weight of the wheel from the surface of the rail to its lower  
50 flange and the chair at the instant of passing the joint.

The completed structure is compact and stable, and will greatly reduce the wear and tear on the rail and car now due to the im-  
55 pact of the wheels upon the ends of the rails in passing over joints.

It is obvious that the raising of the block E above the rail is not essential to the usefulness of the parts of my invention. In fact,  
60 that block may be level with the rails as originally laid, and then if the rails give at the joint the hold will be taken upon that block. It is likewise non-essential to cut away the rails, as at H, though I prefer this form. The  
65 block E may extend beyond the ordinary outer surface of the rails and still accomplish a valuable result.

What I claim as my invention, and desire to secure by Letters Patent, is—

70 The combination of the rail A, fish-plate D, fish-block E, occupying part of the surface of the rail at the joint, the bearing-surface of said block E being equal in length to the block itself, and the chair B, having bends F  
75 and G, for holding the parts D and E, and the transverse horizontal bolt M, locking together the chair and fish-plates, substantially as described.

In testimony whereof I have signed my name  
80 to this specification in the presence of two subscribing witnesses.

GEO. A. WEBER.

Witnesses:

ANTHONY GREF,  
WM. A. POLLOCK.