

T. E. VAUGHN.
RAIL SUPPORT.
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961,917.

Patented June 21, 1910.

Fig. 2.

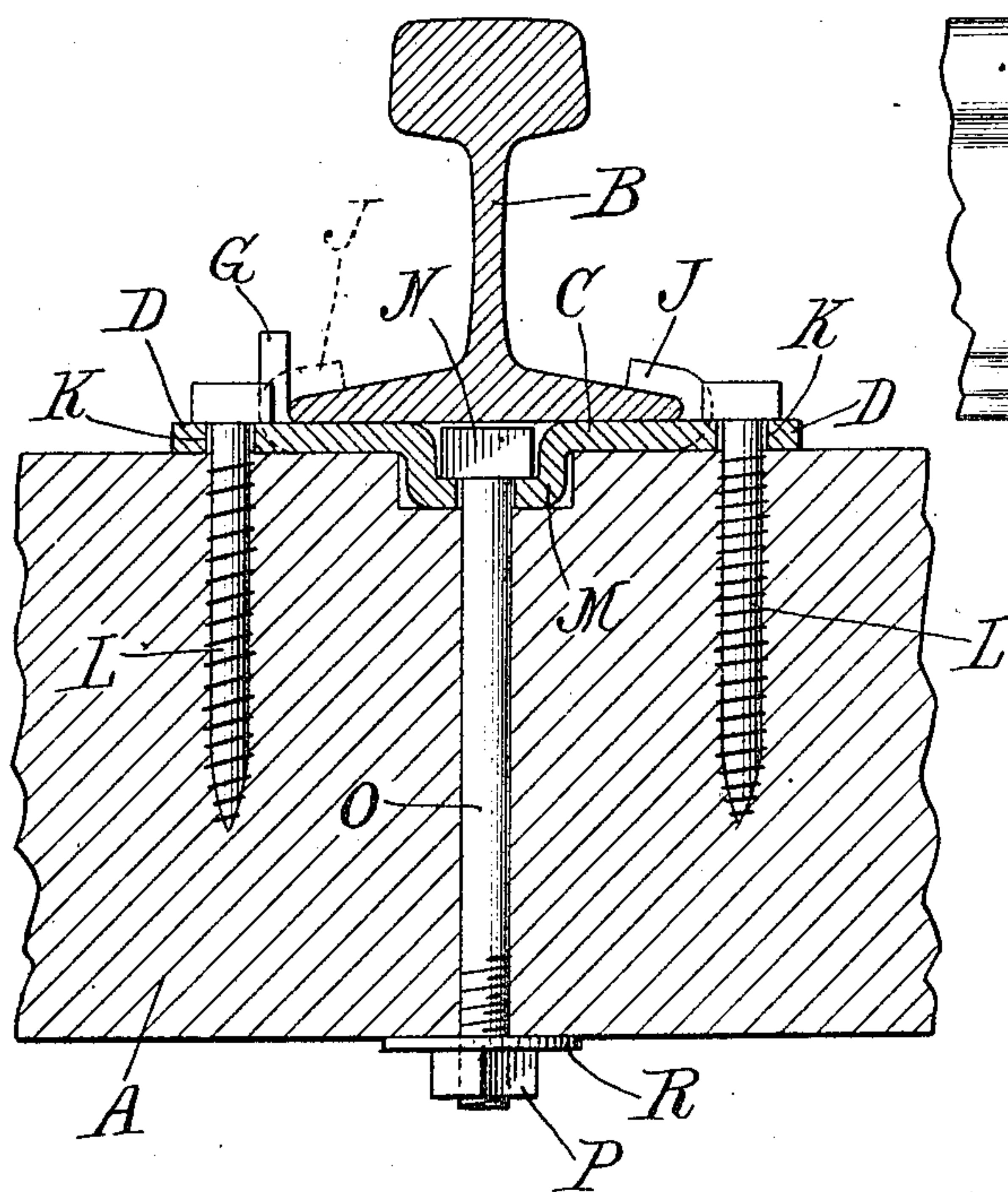


Fig. 1.

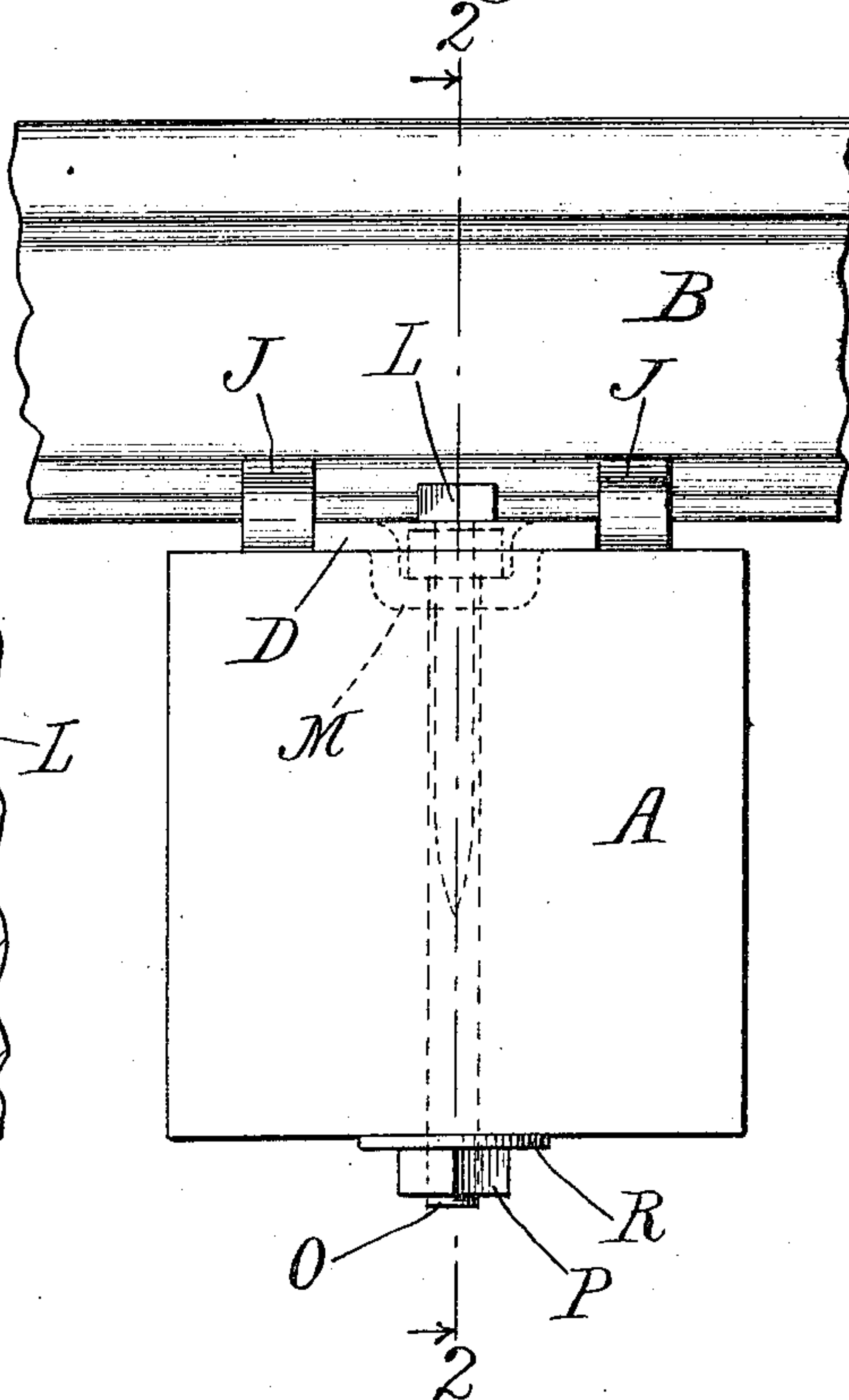
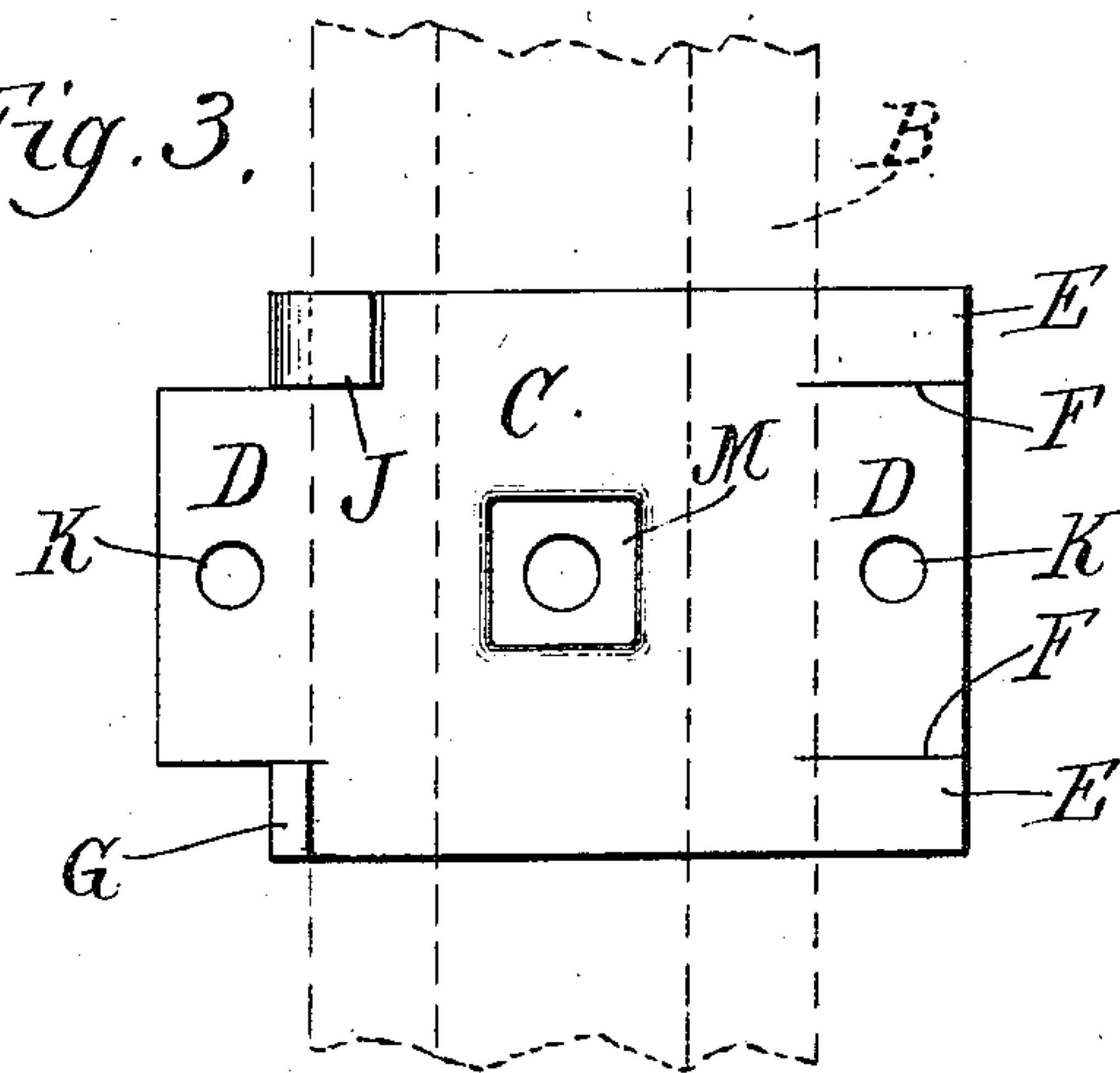


Fig. 3.



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UNITED STATES PATENT OFFICE.

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RAIL-SUPPORT.

961,917.

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To all whom it may concern:

Be it known that I, THOMAS E. VAUGHN, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Rail-Supports, of which the following is a specification.

My invention relates to improvements in rail supports.

10 The object of my invention is to provide a new rail support for railroad rails to be used in cooperation with railroad ties.

It is illustrated in the accompanying drawings, wherein—

15 Figure 1 is a side elevation of the rail and end view of the tie with parts of my device shown in dotted lines; Fig. 2, is a section on line 2—2 of Fig. 1; Fig. 3, is a plan view of the plate in process of being formed.

20 Like parts are indicated by the same letter in all the figures.

A is the tie and B the rail.

25 C is the body of a plate which has on both sides wings D, D extending a considerable distance beyond the flange of the rail. In other words, the plate is nearly twice as long as the width of the flange of the rail.

30 E, E are lips at the corners of the plate formed by slitting the plate at the points F, F. The plate in its market form has each of these lips turned up as indicated at G and when it is applied to the rail they are hammered down onto the flange of the rail as indicated at J. The wings of the plate 35 may be perforated at K, K for the lag screws L, L but this is not the preferred form. The preferred form of the device is that in which the plate has struck into its lower middle portion the rectangular depression 40 M to receive the rectangular head N of the bolt O which passes through a hole in the tie and is provided with the nut P and washer R beneath the tie. The holes K, K and lag screws L may be used without the central 45 securing means or in conjunction therewith, or they may be entirely dispensed with. Ties of wood or any other suitable material may be used.

50 The use and operation of my invention will be readily understood. The plate extends for a considerable distance beyond the flange of the rail over the surface of the tie. It is preferably secured in position by its depressed central rectangular portion which 55 lies in a rectangular recess in the top of the tie. This arrangement minimizes the tend-

ency of the plate to creep along or turn on the tie. The bolt which secures the plate to the tie is placed in a hole directly under the middle of the rail and flange and is thus 60 protected. There will be little tendency for the water to accumulate about the bolt or the tie to rot under the rail. The nut P being placed in the ground immediately rusts so that the parts are locked perma- 65 nently in position. The rail lies between the upwardly projecting lips, and these lips are then bent out in the position indicated at J where they make a sufficiently tight fit to hold the parts in position and prevent ma- 70 terial lateral movement of the rail but permit longitudinal movement of the rail. My invention applied serves as a rail holder, a tie plate and a tie preserver. It presents beneath the rail a surface considerably ex- 75 tended along the length of the rail to act as a tie preserver. Since the tie would be prepared in advance, the holes being carefully made and spaced, the device would operate also as a track liner and gager. The 80 material used is preferably basic open hearth flange steel. The plate is extended beyond the rail flange in both directions so as to present a very wide bearing surface on the tie at a point beyond the edge of the flange 8 so as to prevent or minimize the tendency of the plate to embed or bury itself in the tie. It is in effect a lateral extension of the flange to resist the tendency of the rail to tilt or tip. With such an arrangement ties 9 may be more widely spaced than at present, thus reducing the number and cost of ties. Plain fish plates could also be used to make the end connection, angle bars being dis- 9 pensed with.

I claim:

1. As a new article of manufacture, a rail support comprising a metal plate considerably longer than the width of the rail flange and extending laterally beyond the same, 1 provided with lips, spaced by a distance approximately equal to the width of the flange of the rail, upwardly extending, between which the rail can be inserted from above when the plate is in its final position, and adapted to be forced down onto said flange to hold the rail in position, a central depression in the plate under the rail to take into a corresponding recess in the tie, and a bolt beneath the rail with a head lying in such depression and secured at its other end to the tie.

2. As a new article of manufacture, a rail support comprising a metal plate considerably longer than the width of the rail flange and extending laterally beyond the same, 5 provided on each side of the rail with two or more lips, spaced by a distance approximately equal to the width of the flange of the rail, upwardly extending, between which the rail can be inserted from above when 10 the plate is in its final position, and adapted to be forced down onto said flange to hold

the rail in position, a central depression in the plate under the rail to take into a corresponding recess in the tie, and a bolt beneath the rail, with a head lying in such 15 depression and secured at its other end to the tie.

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