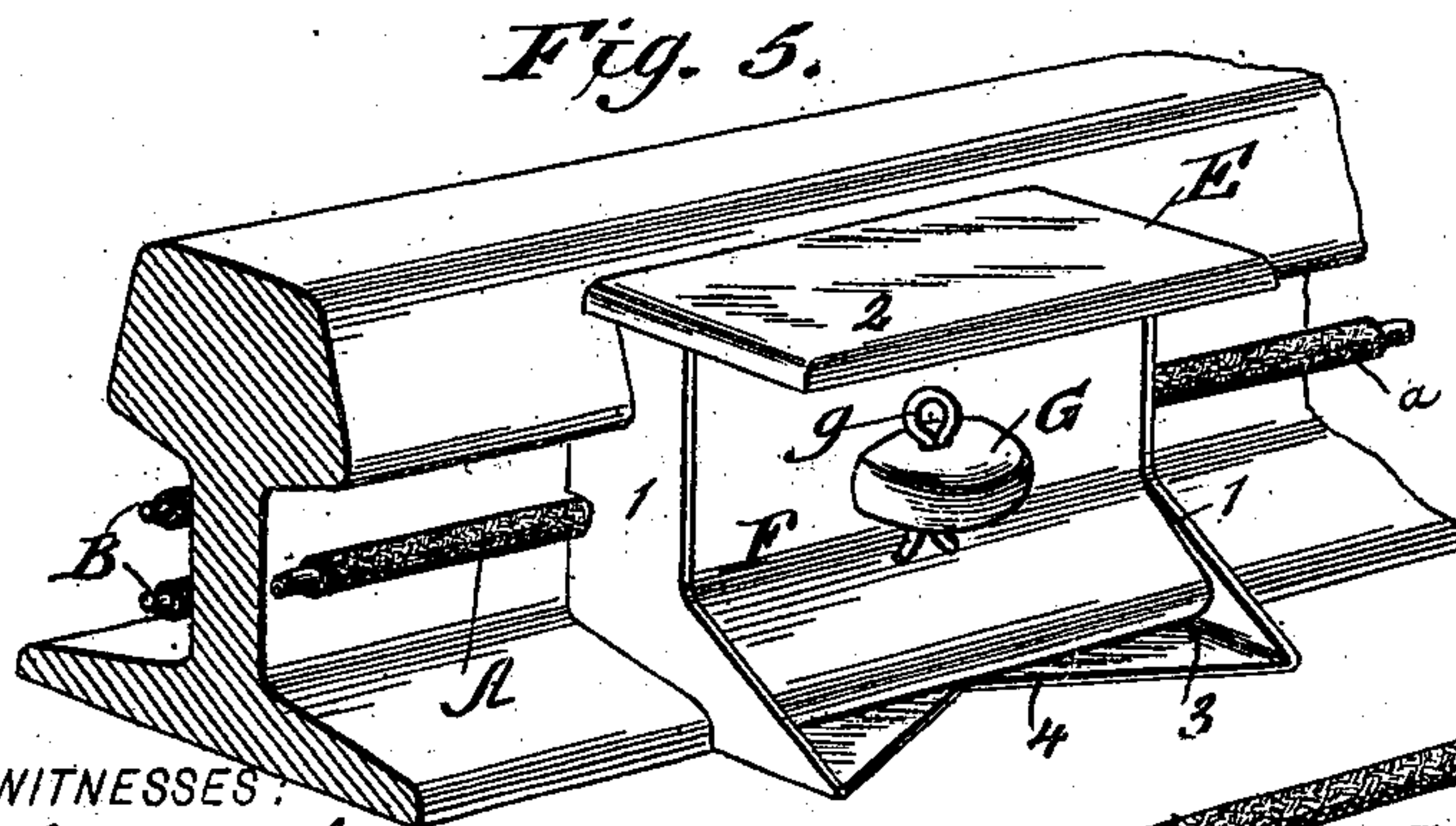
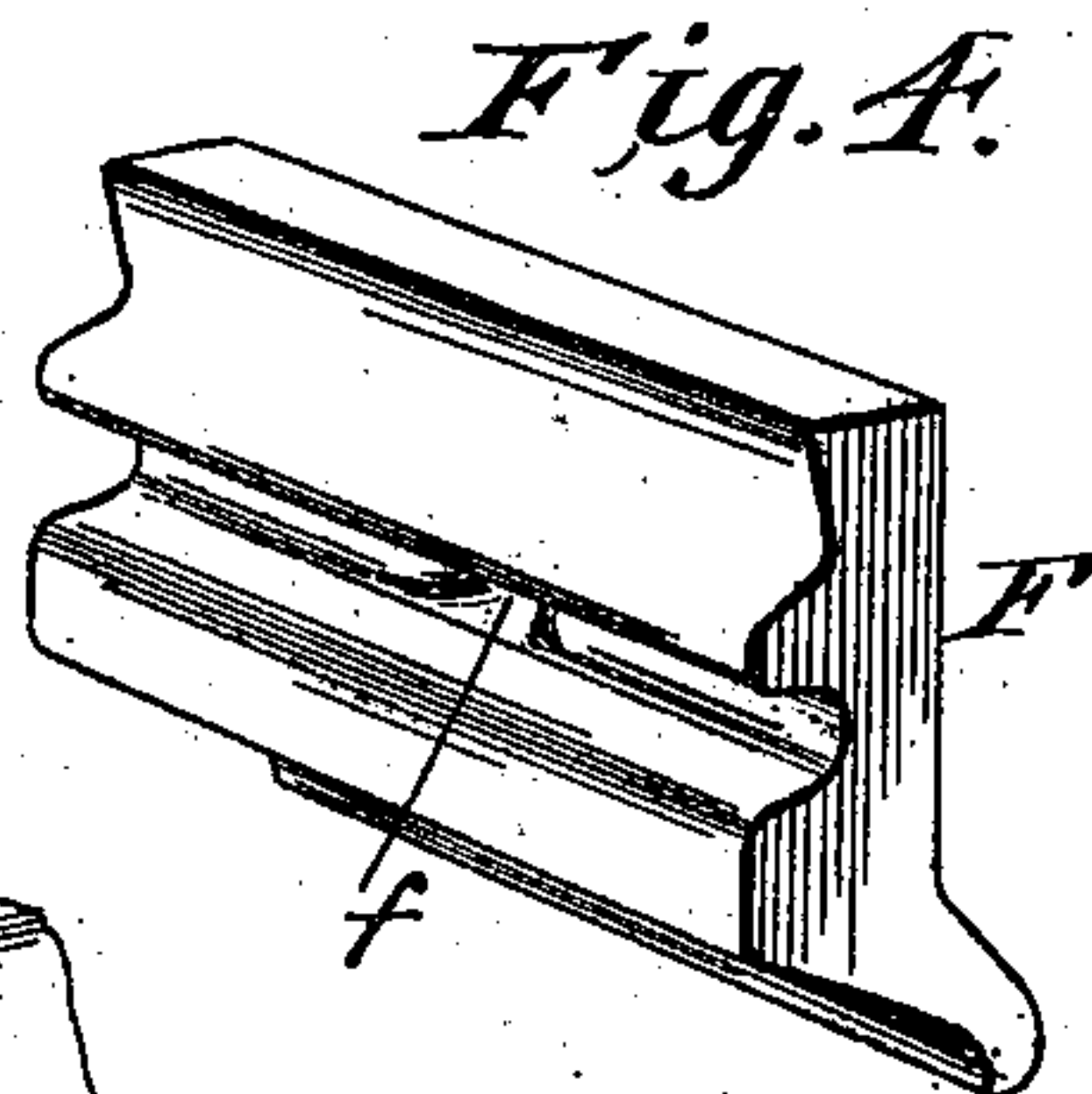
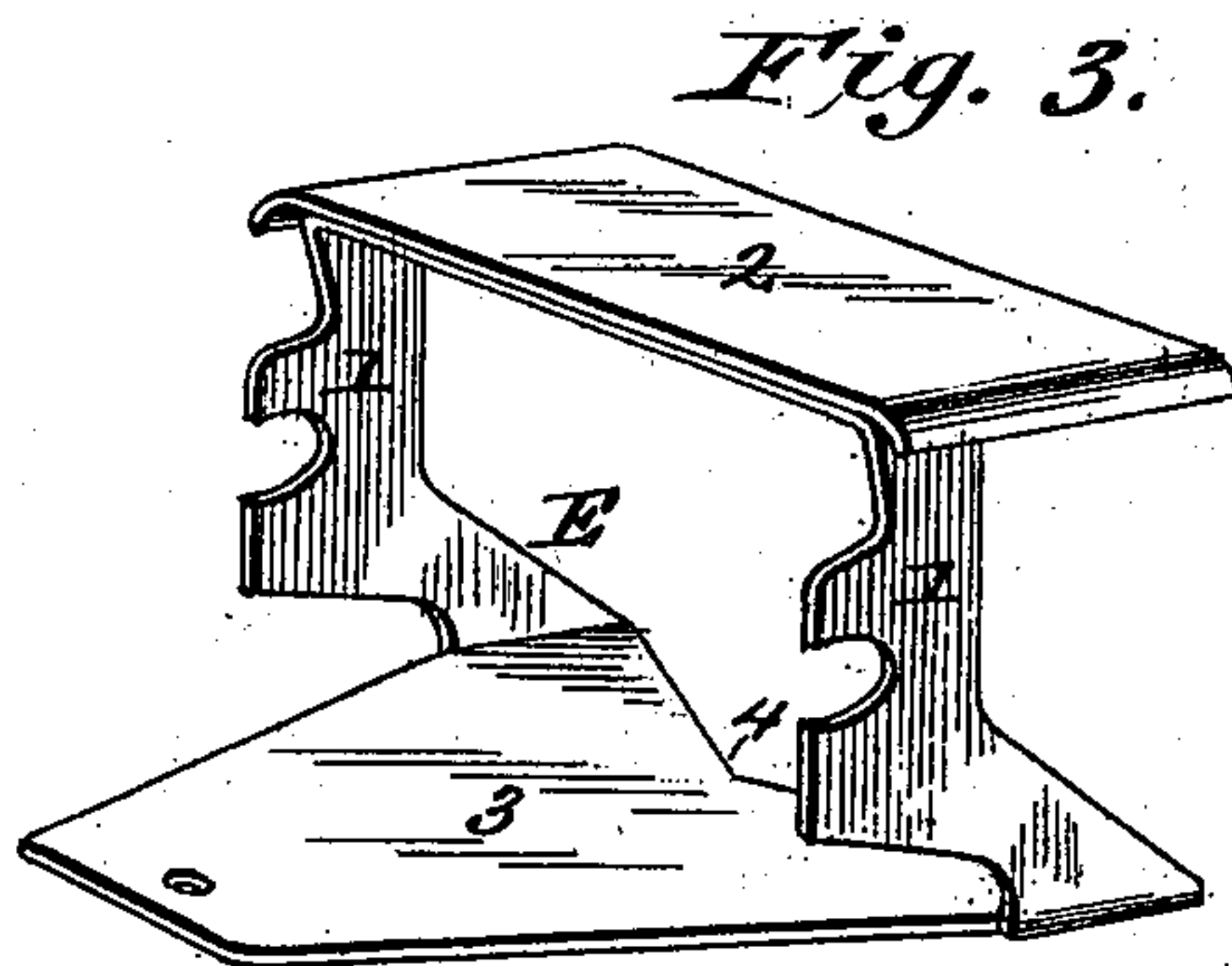
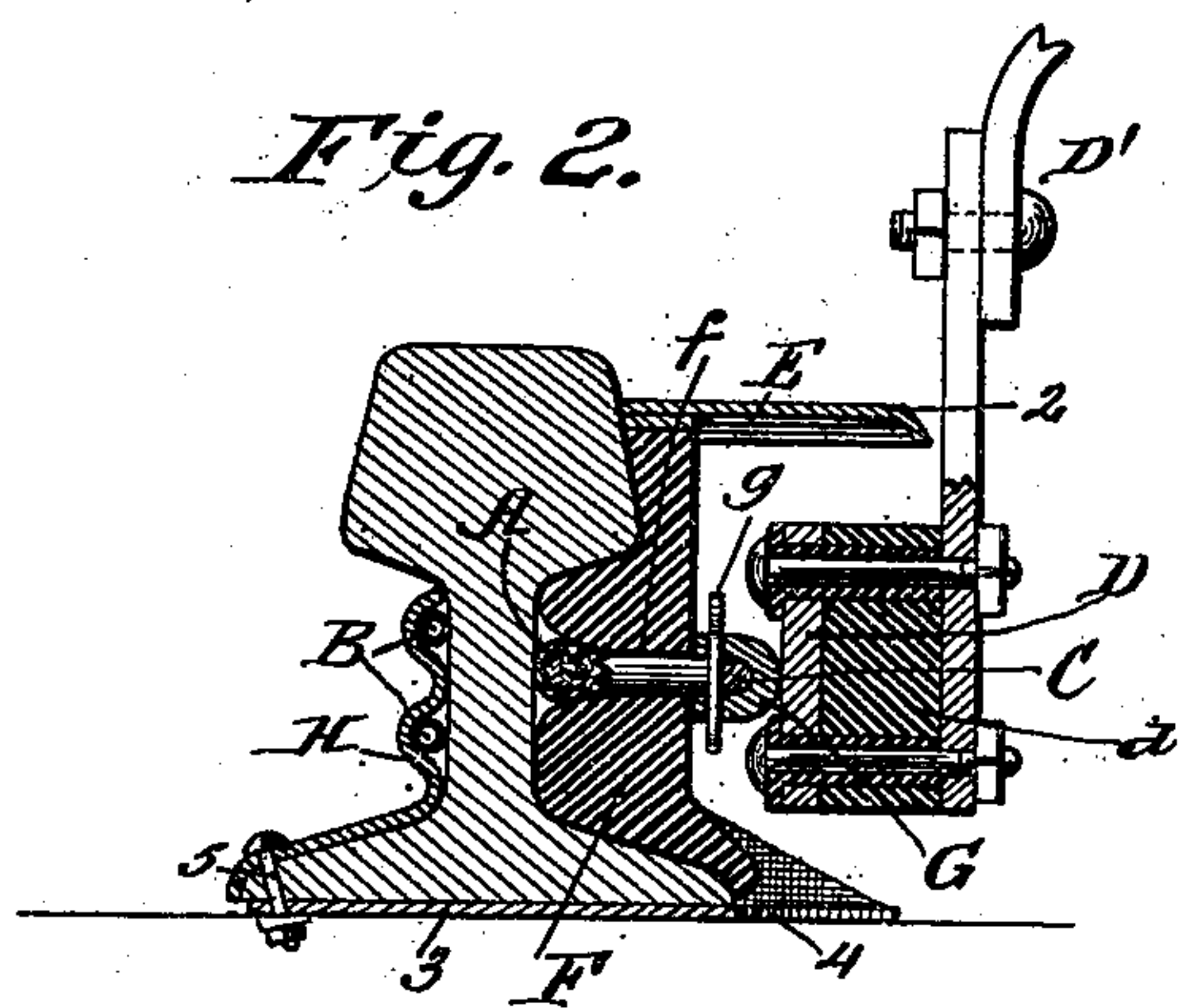
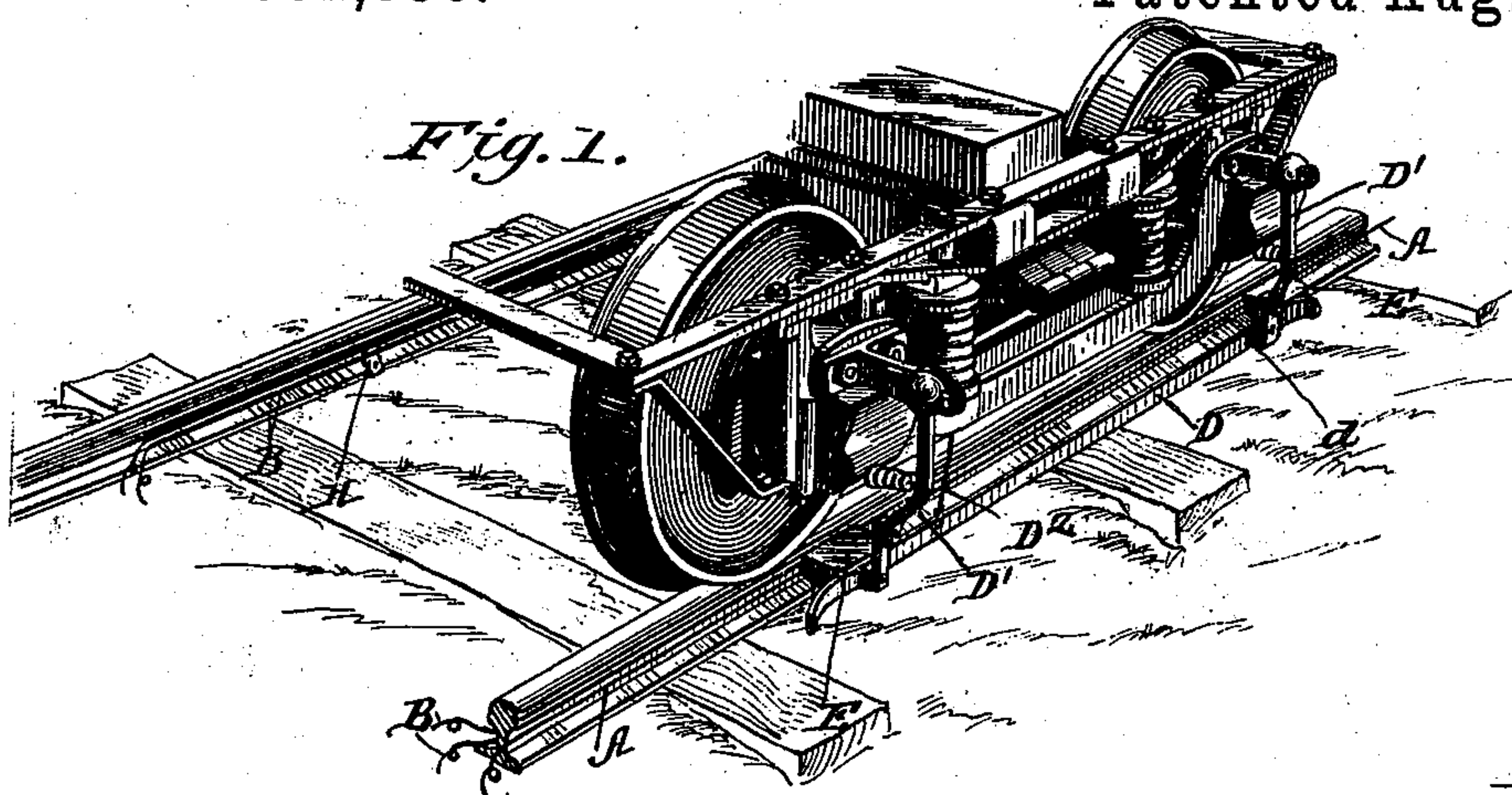


(No Model.)

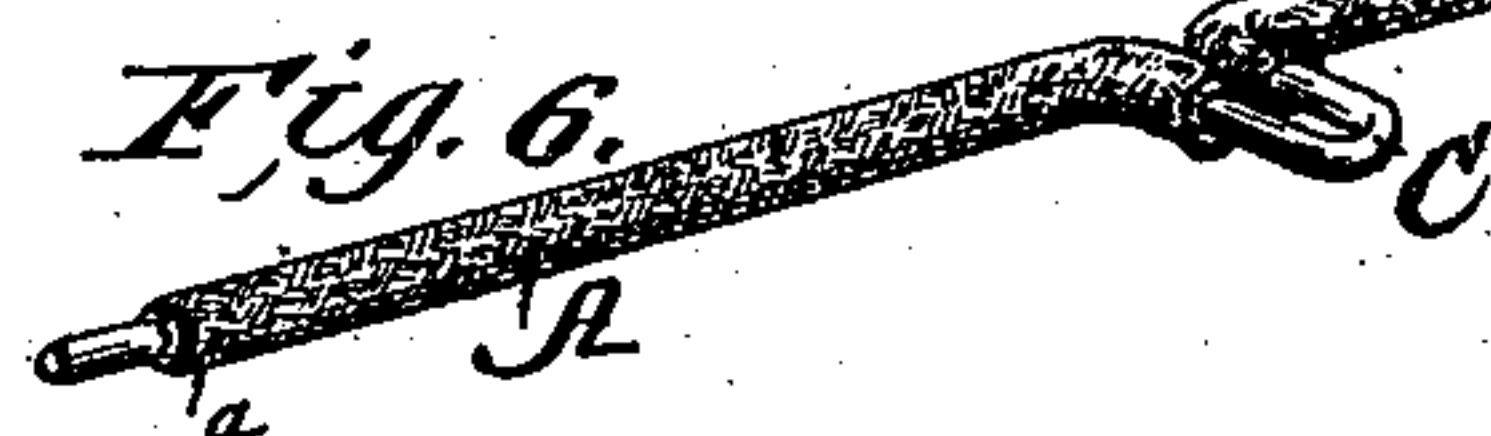
W. F. JENKINS.
SUPPLY SYSTEM FOR ELECTRIC RAILWAYS.

No. 502,858.

Patented Aug. 8, 1893



WITNESSES:
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UNITED STATES PATENT OFFICE.

WILTON F. JENKINS, OF RICHMOND, VIRGINIA.

SUPPLY SYSTEM FOR ELECTRIC RAILWAYS.

SPECIFICATION forming part of Letters Patent No. 502,858, dated August 8, 1893.

Application filed June 3, 1892. Serial No. 435,440. (No model.)

To all whom it may concern:

Be it known that I, WILTON F. JENKINS, of Richmond, in the county of Henrico and State of Virginia, have invented a new and useful Improvement in Electric Railways, of which the following is a specification.

My invention is an improvement in electric railways and especially in the feed wire and in the means for securing the same and the invention consists in the novel constructions and combinations of parts hereinafter described and pointed out in the claims.

In the drawings—Figure 1 is a perspective view illustrating a section of track provided with my improvements. Fig. 2 is a cross section of a rail provided with the improvements. Fig. 3 is a detail view of the clamping frame. Fig. 4 is a detail view of the insulating block. Fig. 5 is an enlarged perspective view of the improvement, and Fig. 6 is a detail view of the feed wire.

The feed wire A which may be termed the delivery feed wire to distinguish it from the supplemental feed wires B is arranged along the outer side of the rail, the wires B being on the opposite or inner side of the rail as shown.

The feed wire A is of a special construction being insulated throughout its main portion by a suitable insulating cover *a* and is provided at intervals of say six or eight feet with bared contact portions C which project laterally for engagement by the brush or contact piece D upon the car. These contact portions C are preferably provided by baring short lengths of the feed wire and looping or bending the same as shown. In connection with this feed wire A, I provide clamps E by which to secure it firmly to the rail adjacent to its contact portion. This is an important feature as by securing the insulated wire rigidly to the rail I avoid the undue frictional wear that would result upon the insulated wire from vibration of the rail if such wire were loosely connected to the rail. It is also preferred to employ an insulating block F apertured at *f* for the passage of the contact C and preserving the contact portion C in the desired position lateral to the rail. This contact portion C projects beyond the insulating block and its extremity is protect-

ed by a removable cap G which fits on such extremity of the contact C and is suitably secured preferably by the spring key *g* passed through perforations in the cap and through the loop of the contact. This removable cap receives all the frictional wear of the car contact brush or bar and avoids any wear of the feed wire, and as the said caps are inexpensive and easily replaced when worn, it will be seen that they form an important feature as they avoid the necessity of renewing or repairing the feed wire which would result if the contact were borne directly thereby.

The clamps E are in the nature of frames fitting over the insulating blocks and having their side bars or plates 1 formed to bind the feed wire A firmly against the rail. At its top the frame E has a plate 2 which projects over and beyond the insulating block and operates as a shed to protect the block and contact from rain and the like.

The base plate 3 of the clamp frame is cut out centrally at 4 below the insulating block so that it will not retain water or snow at such point, and this base plate extends under the base of the rail and is secured. By preference the plate 3 extends below the rail and to or nearly to the outer edge of its base plate where it is secured by a bolt or rivet at 5, the same bolt or rivet serving to secure the clamp plate H which operates to hold the supplemental feed wires B to the inner side of the rail.

The brush or contact piece D is formed to extend between two of the feed wire contacts so that it is always in touch with one of said contacts, and is supported on arms D' from which it is insulated at *d* in suitable manner, said arms being connected by ball and socket joints with the car truck so that the brush can follow the rail in rounding curves and the like, the said arms D' being also connected with the truck by springs in order to hold the brush to the points of contact. A wire D² leads from the brush to the motor and is suitably connected with the latter.

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

1. In an electric railway and as an improved article of manufacture a feed wire having an

insulating covering formed at intervals with short bared contact portions bent or doubled upon themselves and projected laterally all substantially as and for the purposes set forth.

5 2. In an electric railway an insulated feed wire having at intervals contact portions combined with a clamp by which to secure such wire adjacent to its contact portion directly to and against the rail substantially as set forth.

10 3. In an electric railway the improved wire holder herein described comprising the insulating block formed to receive the contact portion of the feed wire and the clamp frame receiving said block and conformed to the hollow of the rail substantially as set forth.

15 4. In an electric railway an insulated feed wire provided at intervals with laterally bent contact portions and having removable caps fitted on the ends of said contact portions whereby to protect the same from wear, substantially as set forth.

20 5. In an electric railway the combination with the rail of the insulated feed wire having at intervals bared contact portions and clamps securing said wire directly to and against the rail at points adjacent to said contact portions all substantially as and for the purposes set forth.

25 6. In an electric railway, the combination of the rail, the feed wire having the laterally projected contact portion, the insulating block having an aperture for the said contact portion and the frame fitted over the insulating block and secured to the rail substantially as set forth.

30 7. In an electric railway, the combination of the feed wire, the insulating block and the clamp frame having a shed like plate extended

over and beyond the insulating block substantially as set forth. 40

8. In an electric railway, the combination of the rail the insulating block having an opening, the feed wire having a looped or bent contact portion extended through said opening, the cap or cover fitted on the end of said contact portion, and the clamping frame fitted over the insulating block and secured substantially as set forth. 45

9. In an electric railway the combination with the rail the feed wire and the insulating block of the clamp frame fitted over the block and having its base plate extended under and secured to the base of the rail all substantially as and for the purpose set forth. 50

10. The improvement in electric railways herein described consisting of the rail, the delivery feed wire having the bared contact portion the insulating block, the clamp frame fitted over the insulating block and having its base plate extended under the base of the rail, the supplemental feed wires arranged on the opposite side of the rail from the delivery feed wire and the clamp plate for securing the supplemental feed wires to the frame all substantially as and for the purposes set forth. 55

11. The combination of the rail, the wire having the lateral bared contact portion, the insulating block fitted to the rail and having an opening for the passage of the said bared contact portion and securing devices by which to hold the block and the wire to the rail substantially as set forth. 60

WILTON F. JENKINS.

Witnesses:

ROSEWELL PAGE,
GEO. WAYNE ANDERSON.