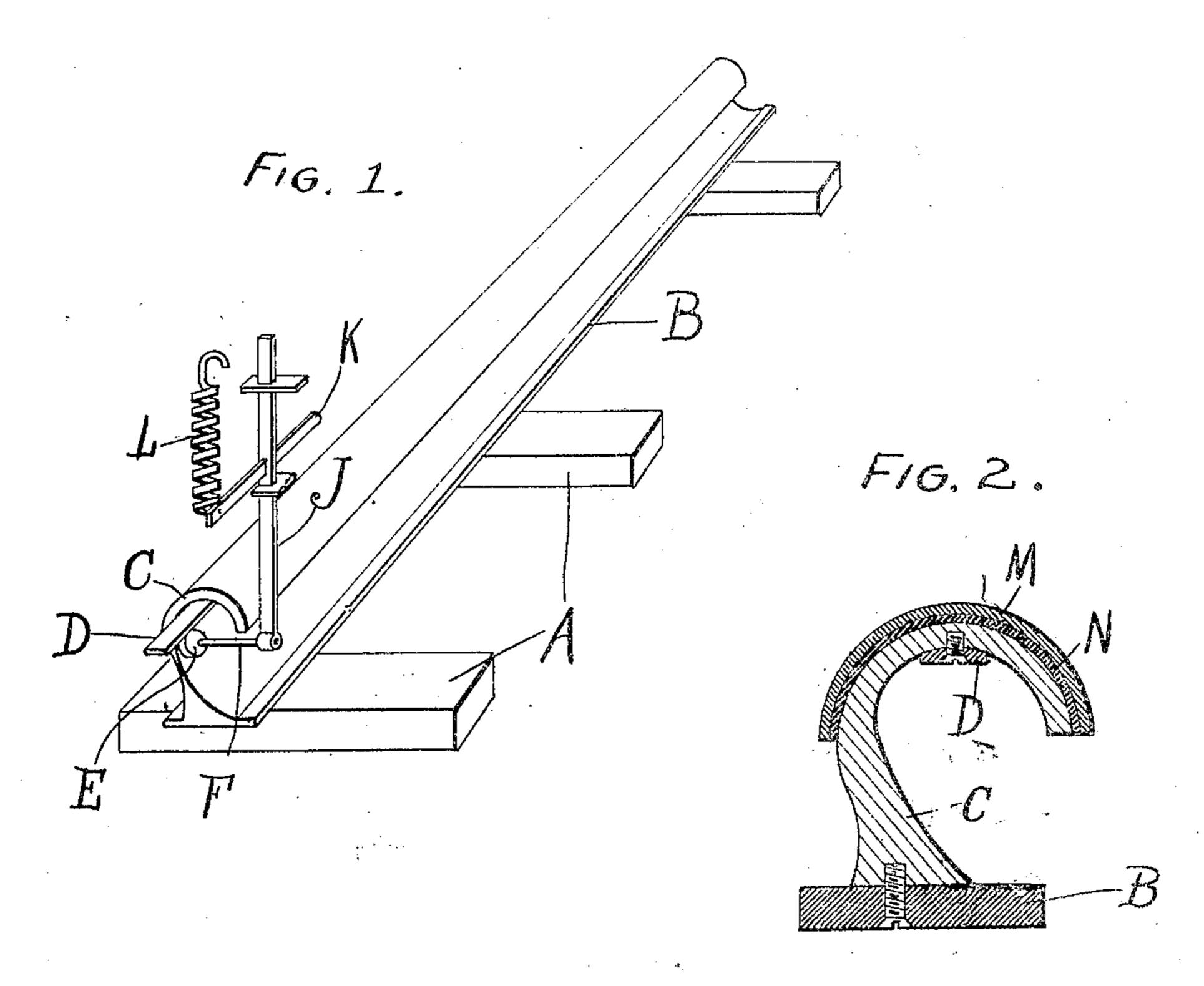
## J. F. FEELEY. THIRD RAIL ELECTRIC RAILWAY SYSTEM. APPLICATION FILED JULY 16, 1907.



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## NITED STATES PATENT OFFICE.

JOHN FRANCIS FEELEY, OF BIGTIMBER, MONTANA.

No. 889,448.

Specification of Letters Patent.

Patented June 2, 1908.

Application filed July 16, 1907. Serial No. 384,009.

To all whom it may concern:

Be it known that I, JOHN FRANCIS FEELEY, a citizen of the United States, residing at Bigtimber, county of Sweet Grass, and State 5 of Montana, have invented a certain new and useful Improvement in Third-Rail Electric-Railway Systems, of which the following is a specification.

My invention relates to a new and useful 10 improvement in third rail electric railway systems, and has for its object to provide an exceedingly simple and effective construction by which the third rail will be housed against accumulation of snow and protected 15 from rain and hail and at the same time insulated from the road bed as well as being protected against contact with persons or animals crossing the road.

With these ends in view, this invention 20 consists in the details of construction and combination of elements hereinafter set forth and then specifically designated by the

claims.

In order that those skilled in the art to 25 which this invention appertains may understand how to make and use the same, I will describe its construction in detail, referring by letter to the accompanying drawing forming a part of this specification, in which-

Figure 1 is a perspective of a portion of a road bed showing my improved third rail applied thereto, and Fig. 2, an enlarged section of the housing showing a layer of rubber located upon the top thereof, and a 35 metal roof superimposed upon said rubber.

In carrying out my invention as here embodied, A represents the railway ties upon which is supported the metal strip B, the latter being secured to the ties in any suitable 40 manner, as by spikes or the like, and to this strip is secured the housing C which has an enlarged base and a continuous undercut groove or channel throughout its entire length forming an overhanging roof, and 45 this housing is made of wood or other nonconducting material and has secured within the groove upon the underside of the roof the third rail D in such manner as to fully protect said third rail from the elements and 50 from contact with surrounding objects.

E represents a trolley wheel adapted to run upon the underside of the third rail, and this wheel is journaled upon the stationary shaft F, the latter being secured in the sliding post J so as to be carried into or out of 55 contact with the third rail by any suitable mechanism located within the motor car and under the control of the motorman.

K represents a lever which passes through the sliding post and has attached thereto the so coiled spring L by which the post is normally drawn upward so as to keep the trolley wheel in spring contact with the third rail.

In Fig. 2 I have shown the roof of the housing protected against wear and tear by 65 a covering of sheet metal M, such as tin, and this covering may be insulated from the roof by a layer of rubber or other suitable insulating material N.

In practice the housing may be made in 70 suitable lengths, the ends being matched together so as to form a continuous channel in which the third rail is located.

Having thus fully described my invention,

what I claim as new and useful, is-In a third rail system, a metal strip forming the base, a housing of wood composed of a vertical part having an enlarged base secured to said strip and an overhanging roof of substantial semi-circular form, a third 80 rail having a convex top face to register with and secured to the highest point of the concave under face of said roof, screws extending through said third rail and partially into said roof, a strip of rubber of semi-circular cross- 85 section secured on top of said roof and a strip of sheet metal of semi-circular cross-section secured on top of said strip of rubber, said rubber serving as an insulating medium between said screws and third rail and said 90 strip of sheet metal, the sides of said roof ex-stending downwardly so as to almost completely inclose said third rail.

In testimony whereof, I have hereunto affixed my signature in the presence of two 95

subscribing witnesses. JOHN FRANCIS FEELEY.

Witnesses:

JOHN WATT, GILBERT H. HOWARD.