No. 757,138.

PATENTED APR. 12, 1904.

P. T. McGOWAN.

THIRD RAIL FOR ELECTRIC RAILWAYS.

APPLICATION FILED DEC. 22, 1903.

NO MODEL.

Fig. 1.

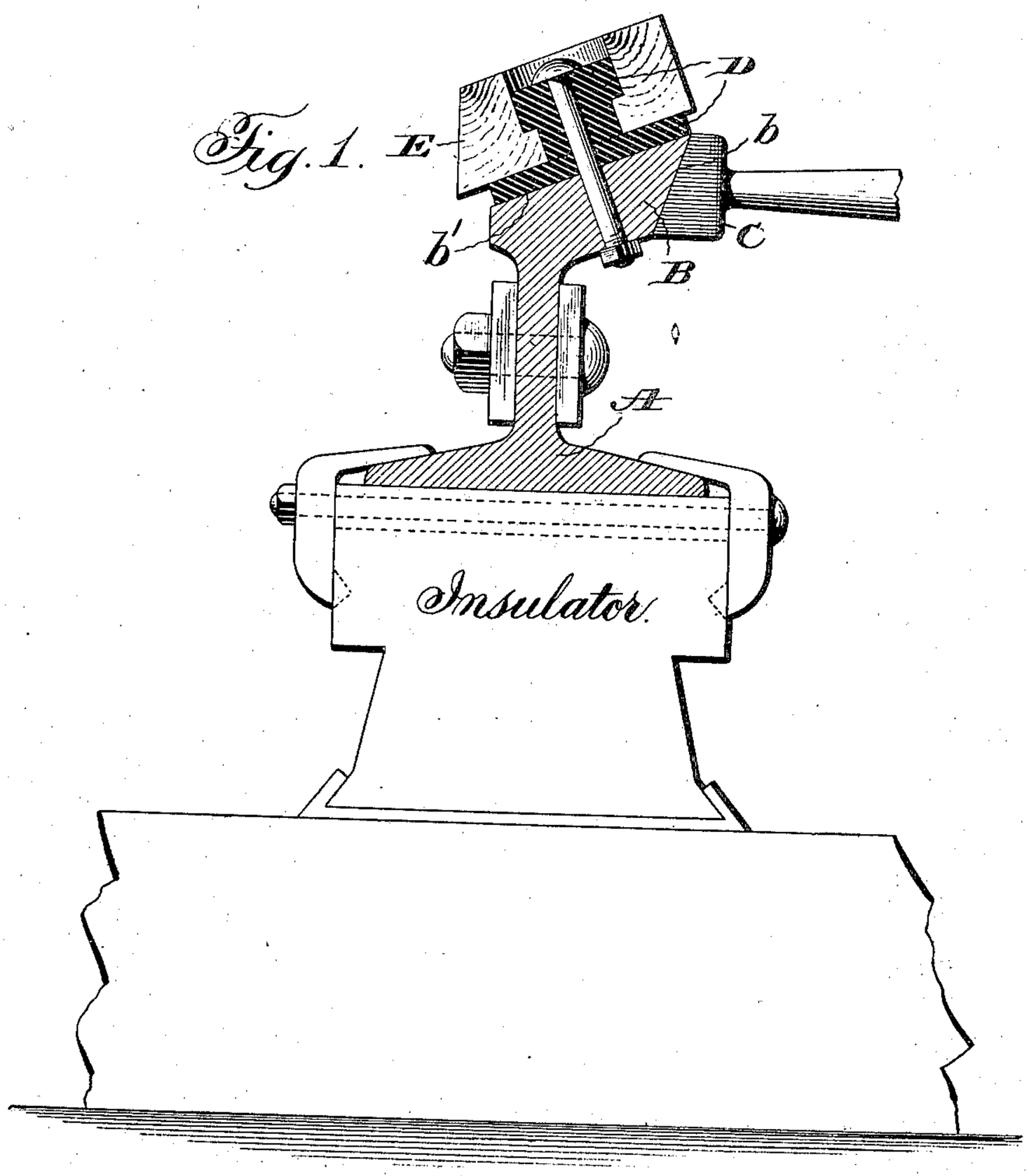
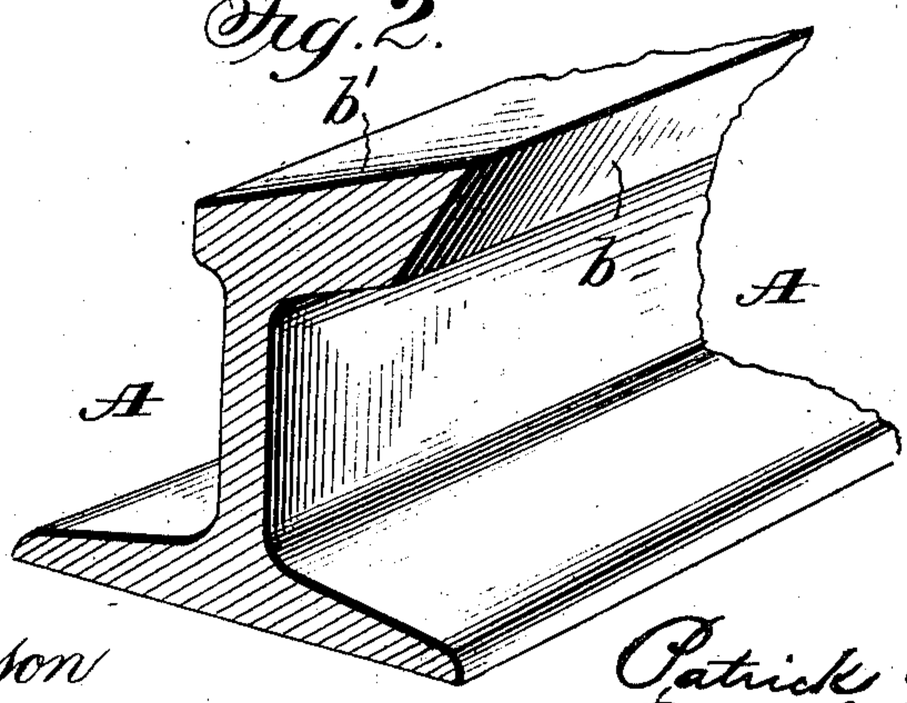


Fig. 2.



Witnesses:

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No. 757,138. Patented April 12, 1904.

UNITED STATES PATENT OFFICE.

PATRICK T. McGOWAN, OF AVOCA, PENNSYLVANIA.

THIRD RAIL FOR ELECTRIC RAILWAYS.

SPECIFICATION forming part of Letters Patent No. 757,138, dated April 12, 1904.

Application filed December 22, 1903. Serial No. 186,174. (No model.)

To all whom it may concern:

Be it known that I, PATRICK T. McGOWAN, of Avoca, in the county of Luzerne, and in the State of Pennsylvania, have invented a certain new and useful Improvement in Third Rails for Electric Railways; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, in which—

Figure 1 is a cross-section of a portion of the road-bed of a third-rail system embodying my invention, and Fig. 2 is a perspective view of a portion of my third rail.

The object of my invention is to provide a third rail of such construction as will insure immunity of the surface along which the collector or brush passes from snow, ice, or moisture without the employment of any housing or hood therefor and which will be inexpensive in construction and application to the road-bed and capable of ready substitution for rails of other types; and to these ends my invention consists in the construction substantially as hereinafter specified and claimed.

In cross-section my third rail A has a base and vertical web similar to the base and web of the ordinary T-rail. Projecting laterally from the top of the web is a flange B, having a side surface *b*, which inclines downward and inward and which surface is the one with which the collector or brush C has contact, and an upper surface *b'*, that also inclines downward from the point where it joins the inclined side surface *b*. By reason of the downward and inward inclination of the brush-engaging surface *b* it will be seen to be impossible for snow or moisture to accumulate upon it, for if it lodges thereon it will immediately pass off, and snow or moisture falling upon the upper surface *b'* will tend to pass off therefrom in a direction away from the side surface *b*, so that likelihood of moisture from the upper surface passing to the brush-engaging surface is obviated.

My rail is placed on the road-bed upon suitable insulators, and, as will be evident, its form is such that the work of applying it may be most readily done, both in respect to the matter of original installation and the replacement by my rail of other types of rail. Its form is such also, as will be evident, as to admit of its inexpensive manufacture.

In order to provide security from danger to persons from the current, insulators D are secured at intervals by bolts to the upper side of the rail to support a wooden rail or plank E, the bolts also serving to fasten the latter. The top of the rail E inclines like the third rail to shed water, &c. This guard or protector, however, may be omitted, if desired.

Having thus described my invention, what I claim is—

1. A third rail having a base consisting of opposite, horizontally-extending flanges, a web rising from the base, and a laterally-extending flange at the top of the web, having a brush-engaging side surface.

2. A third rail having a brush-engaging side surface that inclines downward and inward.

3. A third rail having a brush-engaging side surface that inclines downward and inward, and an upper surface that inclines downward from the point where it joins the side surface.

4. A third rail having a base consisting of opposite, horizontally-extending flanges, a web rising from the base, and a laterally-extending flange at the top of the web, having a brush-engaging side surface that inclines downward and inward.

5. A third rail having a brush-engaging side surface, and a guard attached to and supported by the top of the rail.

In testimony that I claim the foregoing I have hereunto set my hand.

PATRICK T. McGOWAN.

Witnesses:
JOHN R. REAP,
FRANCIS A. HARMON.