(No Model.)

W. F. WEISS.

TRAVELING CONTACT FOR ELECTRIC RAILWAYS.

No. 589,452. Patented Sept. 7, 1897.

FIG. 1.

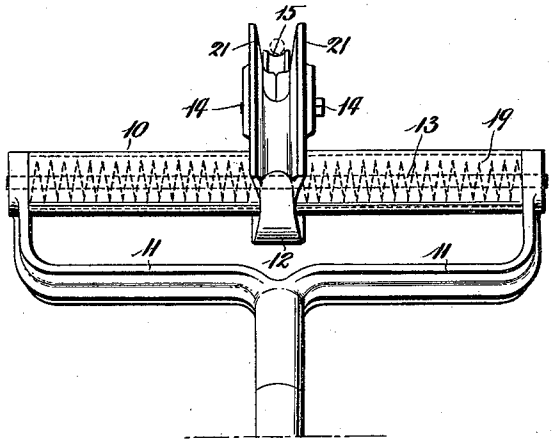


FIG. 2.

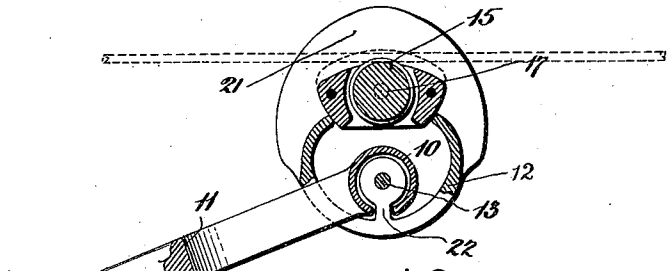


FIG. 3.

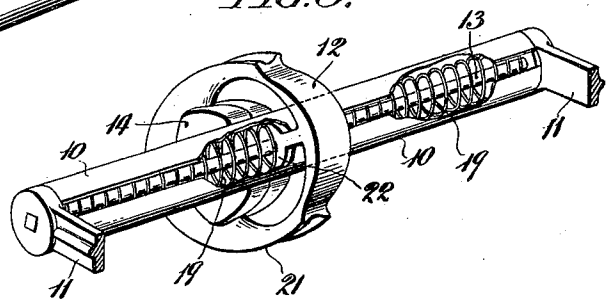


FIG. 5.

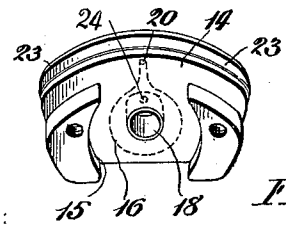


FIG. 4.

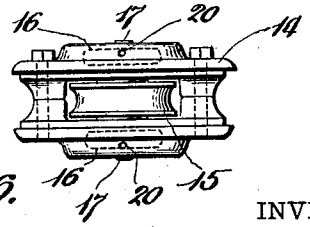
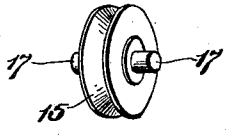


FIG. 6.



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TRAVELING CONTACT FOR ELECTRIC RAILWAYS.

SPECIFICATION forming part of Letters Patent No. 589,452, dated September 7, 1897.

Application filed April 24, 1897. Serial No. 633,701. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM F. WEISS, a citizen of the United States, residing at the town of Stockton, in the county of Camden and State of New Jersey, have invented a new and useful Traveling Contact for Electric Railways, of which the following is a specification.

My invention relates to improvements in traveling contacts for electric railways.

The object of my invention is to afford an improved means for carrying the contact wheel or pulley, adapted to accommodate itself to the variations in the relative positions of the conductor, with means for preventing the pulley from readily disengaging itself, and also improvements in details of construction.

In the accompanying drawings, Figure 1 is a front view of my device, showing the inner transverse supporting-rod and the springs in dotted lines. Fig. 2 is a side detailed view in part section. Fig. 3 is an under view in perspective with part of the casing and arms broken away to show details. Fig. 4 is a view of the pulley and the supporting-blocks within which it is held. Fig. 5 is a detailed side view of one of the supporting-blocks. Fig. 6 is a perspective view of the pulley which contacts with the conductor.

The carrying-piece 12 (best shown in Figs. 2 and 3) has a central opening, and into this open part from its lower side extends an arm or shank 22, perforated at its upper end and adapted to fit over and slide upon the rod 13, which is held between the ends of arms 11. About this rod 13, upon either side of said carrying-piece 12, are spiral springs 19, extending from the carrying-piece to the ends of the arms 11, respectively, which normally hold the carrying-piece at about the middle of the rod 13, but upon exterior pressure being applied to the carrying-piece 12 permit it to slide in either direction toward one or the other of the arms 11. The casing or cylinder 10 also extends from and between the ends of arms 11 and surrounds the spiral springs 19. A slot in its lower side throughout its length permits of the free movement along the rod 13 of the arm or shank 22 of the carrying-piece 12. The said opening or slot along the lower side of the cylinder 10, while permitting the free lateral movement of the arm or shank 22 along the rod 13, serves to prevent the rotary movement of the arm or shank 22 about the rod 13, and so maintains the carrying-piece 12 in an upright position, as shown in Fig. 1. The casing or cylinder 10 also serves to protect the rod 13 and the springs surrounding the rod from injury by reason of the conductor or feed-wire coming in contact with them.

Just above the opening in the carrying-piece 12, through which the rod and cylinder pass, are seated in said carrying-piece the two wheel-blocks 14, which surround and carry the wheel 15, the axle 17 of which is rigid with the wheel and extends on either side into blocks 14. The wheel 15 projects upward through the blocks 14, so as to be free to contact with the conductor. The blocks 14 are bolted together through a suitable opening in the carrying-piece 12, so as to support and incase the wheel 15, except as to the upper part of its periphery, and so form a bearing-box for the same, while the flanges 23 are adapted to contact with the sides of the carrying-piece 12 and hold all firmly together.

Within the blocks 14 are reservoirs or cavities surrounding the axle-bearings of the grooved wheel, as shown by dotted lines 16, having external openings at 20 and channels 24, leading to the axle-holes 18. These cavities serve as reservoirs for oil, which is gradually fed to the axles only as it is needed, thus obviating the very objectionable feature of most devices in present use—that is, of dripping oil over the car-top. These reservoirs are capable of holding a considerable quantity of oil. A single filling of the same serves to lubricate the axles of the grooved wheel for several weeks.

The carrying-piece 12 is provided with flanges or lips 21, extending above and on either side of the periphery of the grooved wheel to form an additional guard to retain the conductor upon the wheel.

The device may be mounted on any convenient form of pole pivoted or otherwise attached to the car-top and adapted to make upward-pressure contact with the conductor.

In the construction of devices embodying my invention I do not wish to be limited to the exact form above described. I may omit the flanges of the carrying-piece and use a pulley having a deeper groove. I may also dispense with the springs to maintain the position of the carrying-piece.

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

1. In combination with the conductor and contact-pole of an electric car, a grooved wheel adapted to revolve freely and contact at its upper periphery with the conductor, the means of carrying the said wheel at the end of the contact-pole, the transverse rod adapted to support the said carrying means and to permit of lateral movement of the same upon it and the slotted cylinder as means for protecting the rod from contact with the conductor.

2. In combination with the conductor and contact-pole of an electric car, a grooved wheel adapted to revolve freely and contact at its upper periphery with the conductor, the means of carrying the said wheel at the end of the contact-pole, said carrying means having flanges on either side of the grooved wheel as means of preventing the conductor from leaving the wheel, the transverse rod adapted to support the said carrying means and to permit of lateral movement of the same upon it, the springs as means of maintaining the normal position of the carrying means, and means for protecting the springs and rod which they surround, from contact with the conductor.

3. In combination with the conductor and contact-pole of an electric car, a carrying-piece provided with a contact-wheel and flanges on either side of same, a transverse rod with which said carrying-piece is adapted to engage from its lower side and upon which it is adapted to slide, the spiral springs surrounding said rod adapted to maintain the carrying-piece normally at the middle of the rod, supporting-arms attached to either end of the said transverse rod to connect the same with the pole and a cylinder surrounding the transverse rod and springs, with a longitudinal slot upon its lower side to permit lateral movement of the carrying-piece but prevent its pivotal movement on the transverse rod, and also as means of preventing the contact of the conductor with the said transverse rod and springs.

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Witnesses:
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