## L. KLENTSCHI. ELECTRIC SAFETY APPLIANCE.

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NO MODEL. Fig.2. Fig. 3. INVENTOR WITNESSES: LouisKlentschi

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## United States Patent Office.

LOUIS KLENTSCHI, OF RICHMOND HILL, NEW YORK.

## ELECTRIC SAFETY APPLIANCE.

SPECIFICATION forming part of Letters Patent No. 743,888, dated November 10, 1903.

Application filed February 20, 1903. Serial No. 144,311. (No model.)

To all whom it may concern:

Be it known that I, Louis Klentschi, a citizen of the United States, residing at Richmond Hill, in the county of Queens and State of New York, have invented new and useful Improvements in Electric Safety Appliances, of which the following is a specification.

By means of this invention foreign matter, such as snow or the like, can be prevented to from accumulating on a conductor or third rail, so that interruptions—as, for example, in the running of trains or trolley-cars—can be avoided, as also accidents by which the safety of trackmen or other persons might be endangered.

This invention is set forth in the following specification and claims and illustrated in the

annexed drawings, in which—

Figure 1 shows an end elevation of an elec-20 tric conductor or third rail with safety appliance open. Fig. 2 shows the conductor covered or inclosed. Fig. 3 is a side elevation of Fig. 2.

In the drawings is shown a conductor 1, such as a third rail of an electrically-operated vehicle or railway-train. The track or rails 2 are adapted for the running of the wheels 3, as usual. A guard or cover is shown at 13, which when closed will prevent the fall or accumulation of snow, sleet, or foreign matter or the formation of ice or coating on the third rail, by which the desired flow of electricity might be interfered with.

The cover or lid is shown normally closed; 35 but means for opening the same at suitable intervals or periods will allow a passing car or train to have its motor vitalized as re-

quired.

The cover is shown as having its tail or part 12 linked at 8 to an arm or actuator 11, shown in form of a lever fulcrumed at 7. A spring 9 tends to restore or move the arm to normally close the cover when the parts are free. A sliding pin or pusher 5 when de45 pressed will move the arm 11 to actuate the link 8 and open the guard, and the rail being thus uncovered a shoe or trolley or other moving contact can reach to the third rail for taking electricity therefrom as required.

A practical construction is to have a set of pins 5—say about six to eight feet apart—connected to a continuous rail 4, and as wheel

3 or its flange comes to rail 4 to depress the same the pin 5 moves arm 11 to open the guard 13 and allow the shoe or trolley to run 55 along the conductor.

The arms may have seats or depressions 10 for pins 5, and suitable guides or boxes 6 may be secured to the cross-ties 14 at suitable points to receive and guide the pins.

This invention is readily applicable without requiring any change in the construction of the cars or motor-wagons and allows running to and fro of the cars. The invention is applicable at curves as well as at straight 65 parts of the track and is cheap and durable and not likely to get out of order. The invention can be applied to surface and other railroads, and the third rail or conductor could be located at any suitable point either 70 outside of or between the track-rails, as required.

Said cover is made of suitable material. For example, a cover made in form of a screen composed of wire wound with insulating ma- 75 terial is light, flexible, and durable, and will form an efficient cover.

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

1. A guard or cover for a third-rail track, 80 an actuating-arm linked to the cover, a spring for the arm, an actuating-pin for the arm, and a rail for actuating the pins and extended along the full length of the track-rail.

2. In combination, a guard or cover, an ac- 85 tuating-arm, a link connection between one end of said arm and one side of said cover, a spring connected to said arm for returning it to its inoperative position, means for pivotally connecting the other end of said arm, 90 said arm further provided with a curvilinear portion, and a vertically-movable pin adapted to engage in said curvilinear portion of the arm and when operated downwardly adapted to operate said arm to open the said cover, 95 said arm adapted to be returned to its inoperative position by said spring when said pin is released, said arm returning said pin to its inoperative position when the said arm is returned to its inoperative position by the ac- 1co tion of said spring.

3. In combination, a guard or cover, an actuating-arm suitably connected to said cover and adapted when operated to open and close

the cover, a vertically-movable pin adapted when pressure is exerted thereon to engage and operate said arm, causing thereby the opening of said cover, and a spring connected to said arm and adapted to return it to its inoperative position, said arm when returning to its inoperative position adapted to return said pin to its normal position.

In testimony whereof I have hereunto set my hand in the presence of two subscribing 10 witnesses.

LOUIS KLENTSCHI.

Witnesses:

W. C. HAUFF, CHAS. E. POENSGEN.