No. 691,495. Patented Jan. 21, 1902.

P. C. SEGUY.

INSULATING CONDUIT FOR CONDUCTORS OF ELECTRIC TRAMWAYS.

(Application filed Mar. 5, 1901.)

(No Model.)

Fig. 1.

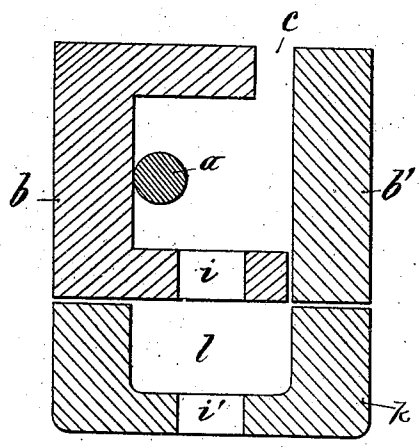
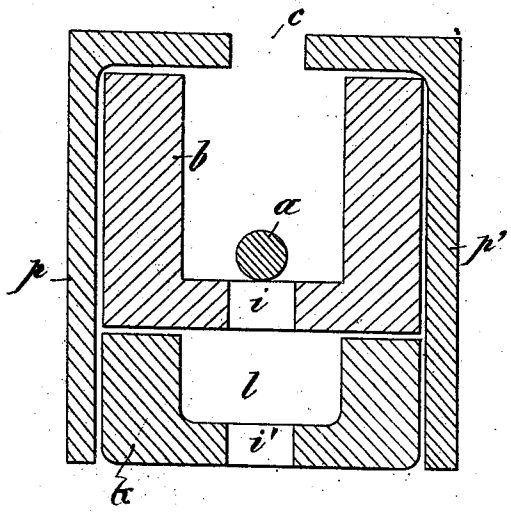


Fig. 2.



Witnesses:
Paul Hunter
A. H. Davis

Inventor
Paul C. Seguy
By Munn & Co.
Attorneys

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

PAUL CHRISTIAN SEGUY, OF PARIS, FRANCE.

INSULATING-CONDUIT FOR CONDUCTORS OF ELECTRIC TRAMWAYS.

SPECIFICATION forming part of Letters Patent No. 691,495, dated January 21, 1902.

Application filed March 5, 1901. Serial No. 49,763. (No model.)

To all whom it may concern:

Be it known that I, PAUL CHRISTIAN SEGUY, electrical engineer, of 9 Rue de la Héva, in the city of Paris, Republic of France, have invented an Improved Insulating-Conduit for the Conductors of Electric Tramways, of which the following is a full, clear, and exact description.

This invention relates to a system of insulation for electric-tramway conductors whereby to avoid danger to foot-passenger and vehicular traffic over the same.

The invention consists, essentially, in the protective means for shielding the conductor from contact by pedestrians or vehicles, while permitting access of the contact-maker thereto.

The invention will be described with reference to the accompanying drawings, in which—

Figure 1 represents my improved system of insulation. Fig. 2 shows a modified form of the insulatory arrangement.

Referring to Fig. 1, my invention consists in placing the electric conductor *a* in channeled paving-blocks *b* of insulating material, and preferably of blocks of what is known as "Garchey" vitreous stone, laid centrally of the track to form a channel *c*, opening at the roadway-surface.

As shown in Fig. 1, the groove or channel *c* is formed by the juxtaposition of two blocks *b b'*, the bottom of the channel being provided with apertures *i* for the escape of water from the channel. For greater drainage the blocks *b b'* are superposed on trough-shaped blocks *k*, forming a continuous water-channel *l*, the bottoms of the blocks *k* being pierced with drainage-holes *i'*. The joints between the blocks may be made with any suitable cement, and preferably of a mixture of caoutchouc and grit.

The conductor *a* may be a metallic cable, (copper or bronze.) Should the water be acid or saline, which would render it a good conductor of electricity, the cable is preferably fixed to one of the side walls *b* by means of eyebolts.

The current may be taken either by a trolley or a brush-collector in frictional contact with the conductor *a*.

The width of the channel *c* will depend upon the form of trolley or brush-collector employed.

In the modification shown in Fig. 2 single blocks *b* are employed to form the channel *c*, the conductor *a* being arranged at the bottom of the channel. The blocks *b* are superposed on blocks *k*, similar to those shown in Fig. 1, and the channeled insulating-blocks *b* are laid between the two members of a double rail *p p'* as used for lines having heavy traffic, care being taken to perfectly insulate the stem of the trolley or brush-collector where it comes opposite the heads of the rails.

The provision for drainage may be as previously described. The cleaning would in all cases be facilitated by mounting upon the cars non-conducting brushes, whereby to constantly maintain the surfaces clean, mud being removable by washing with hose-jets or otherwise.

The vitreous stone mentioned is made by putting crushed glass in crucibles and exposing the glass for several hours to a temperature that will soften it. The dough or paste thus obtained is then put in molds and compressed to about ten thousand kilograms. The material obtained has the resistance and the appearance of granite. The crushing resistance is two thousand and twenty-six kilograms per square centimeter and the electric resistance sixty thousand ohms.

In conclusion, I may make such modifications in the forms and arrangements hereinbefore described as may be found desirable in practice.

I claim—

1. An insulator for the conductors of electric tramways, comprising a block of insulating material having a channel formed therein for the conductor, the block being provided with means for the escape of water from the channel, and a block arranged below the insulating-block and forming a channel for the water, substantially as described.

2. An insulator for the conductors of electric tramways, consisting of an insulating paving-block formed of two members, adapted to be set into the surface of the road-bed, and forming a channel opening at the top of the block between the members, the said channel being adapted to receive a conductor the block being provided in its bottom with ap-

ertures for the escape of water from the channel, as set forth.

3. An insulator for the conductors of electric tramways, comprising insulating-blocks made in two parts, adapted to be set in the surface of the road-bed and having a channel formed between the parts and opening at the top of the blocks, the channel being adapted to receive the conductor, the bottom of said channel being formed with apertures for the escape of water, and blocks arranged below the said insulating-blocks and forming a continuous channel for the water, the latter blocks having apertures in the bottom, substantially as described.

4. An insulator for the conductors of electric tramways, comprising insulating-blocks adapted to be set into the surface of the road-bed and having a channel formed therein for the conductor, the said blocks being provided with openings in the bottom, and a water-conductor below the blocks, and having openings in its bottom, substantially as described.

5. An insulator for the conductors of electric tramways, comprising insulating-blocks adapted to be set into the surface of the road-bed and having a channel formed therein, said channel opening at the top of the blocks, the said blocks being provided with apertures in the bottom, and trough-shaped blocks arranged below the said insulating-blocks and forming a continuous water-channel, the said trough-shaped blocks having drainage-openings, substantially as described.

6. An insulator for the conductors of electric tramways, comprising the insulating material having a channel for the conductor opening at the top of the insulating material, the bottom of the channel having apertures formed therein, and a water-conducting passage beneath the bottom of the channel and having drainage-openings, as set forth.

The foregoing specification of my improved insulating-conduit for the conductors of electric tramways signed by me this 18th day of February, 1901.

PAUL CHRISTIAN SEGUY.

Witnesses:

EDWARD P. MACLEAN,

MAURICE H. PIGNET.