

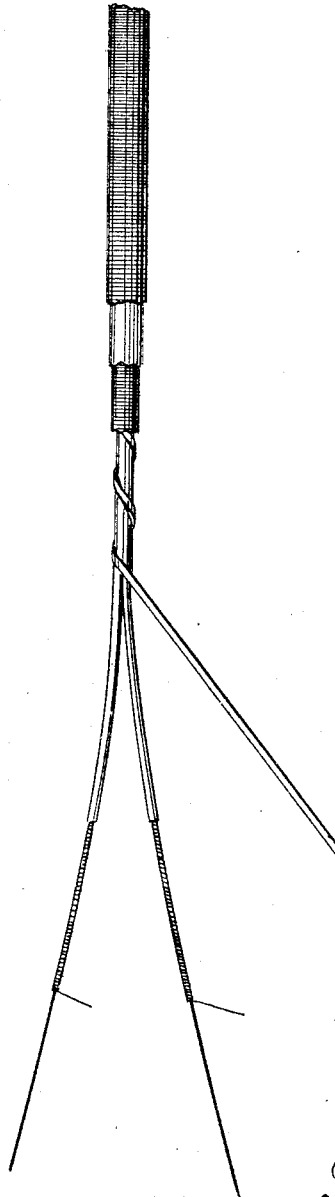
(No Model.)

P. A. CHARPENTIER.

ELECTRIC CONDUCTOR FOR FIRE ALARMS.

No. 259,816.

Patented June 20, 1882.



WITNESSES:

Chas. Nida
Geo. D. Dyngton

INVENTOR:

Paulin A. Charpentier
BY *Vann & Co*

ATTORNEYS.

UNITED STATES PATENT OFFICE.

PAULIN A. CHARPENTIER, OF PARIS, FRANCE.

ELECTRIC CONDUCTOR FOR FIRE-ALARMS.

SPECIFICATION forming part of Letters Patent No. 259,816, dated June 20, 1882.

Application filed December 5, 1881. (No model.) Patented in France July 1, 1880, No. 137,558.

To all whom it may concern:

Be it known that I, PAULIN AMÉDÉE CHARPENTIER, formerly watch-maker to the French navy, at Paris, France, have invented an
5 Electric Conductor Used as a Fire-Alarm; and I do hereby declare that the following is a full, clear, and exact description of the same.

My invention refers to an electric conductor to be used as a fire-alarm. The electric current
10 passes in this conductor when the several wires of which it is composed are connected by the soldering, which is caused by an increase of temperature.

The rope is composed, as shown in the drawing, of two copper wires, each of which is covered with silk steeped in paraffine or in any other impermeable matter which has also the property of facilitating the soldering. To these
15 two wires I join a third wire, composed of tin or of any other metal capable of being melted at a suitable temperature and of soldering together the wire round which it is wound. These three wires are covered with cotton or
20 silken thread, which is also steeped in paraffine. When the wires are placed in damp places they should be covered with a coating of gutta-percha or other equivalent material.

I reserve the right of using all kinds of metals or alloys which may be necessary according to the degree of fusibility which it is
30 desired to obtain, and also to employ any suitable number of elementary wires composing the rope.

In practical use each of my copper wires is connected with one pole of a battery or other
35 source of electricity, so that when the circuit is closed by the fusion of the tin and the consequent soldering together of the copper wires an alarm which is arranged in the circuit will be instantly sounded.

I am aware that two copper wires have been used in connection with one pole of a battery; but the insulating material, when burned, does not allow the contact of the wires and the closing of the circuit, because in its burned state it
40 is a carbonized mixture which militates against an efficient electrical contact. On the other hand the melting of my tin solders the two
45 wires together and insures a perfect contact.

What I claim as new and of my invention is—

An electric conductor for alarms, consisting of two insulated copper wires and an intermediate wire of tin or other easily-fusible metal, whereby the fusing of the tin wire will solder
55 together the two copper wires connected with the two poles of a battery, thereby close the electric circuit and promptly sound an alarm in said circuit, as described.

PAULIN AMÉDÉE CHARPENTIER.

Witnesses:

ROBT. M. HOOPER,
JEAN BAPTIST ROLLAND.