

(No Model.)

A. W. SPERRY.
ELECTRIC CONDUCTOR.

No. 454,546.

Patented June 23, 1891.

Fig. 1.

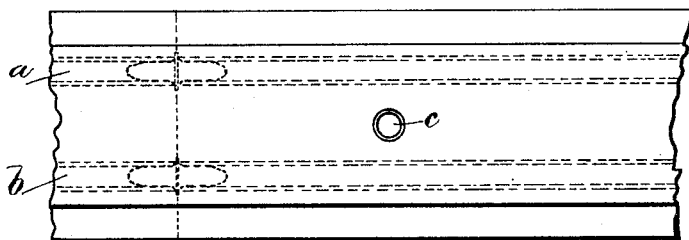
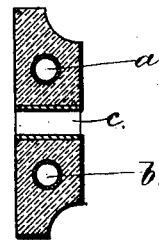


Fig. 2



Witnesses
Harold Terrell
Chas. H. Smith

Inventor
Alfred W. Sperry
per Lemuel W. Terrell
att'y

UNITED STATES PATENT OFFICE.

ALFRED W. SPERRY, OF HARTFORD, CONNECTICUT, ASSIGNOR TO HIMSELF
AND G. WELLS ROOT, OF SAME PLACE.

ELECTRIC CONDUCTOR.

SPECIFICATION forming part of Letters Patent No. 454,546, dated June 23, 1891.

Application filed October 27, 1890. Serial No. 369,521. (No model.)

To all whom it may concern:

Be it known that I, ALFRED W. SPERRY, a citizen of the United States, residing at Hartford, in the county of Hartford and State of Connecticut, have invented an Improvement in Electric Conductors, of which the following is a specification.

In the wiring of buildings and other structures the electric conductors or wires have in many instances been placed in grooved strips of wood upon the surface of walls, and electric wires covered with insulating material have also been employed and fastened directly to the wall, and in other cases the insulated wires have been buried in cement. Accidents have frequently occurred in the use of such conductors by the destruction of the insulating-cover of the wire by acid or alkali, or the covering has been set on fire or destroyed by the heat of the wire caused by a short circuit.

The object of my present invention is to provide an electric conductor with an insulating covering that is not liable to injury by the heat of the conductor or from external causes.

In carrying out my invention I make use of mineral wool and liquid silicate of soda, the proportion of liquid silicate being sufficient to soften and render plastic the mineral wool; but I do not limit myself to the proportions or the materials made use of. This insulating material is formed into an envelope or case around a copper or other metal conductor which carries the electric current. Where two wires or tubular conductors are employed they will lie parallel with each other in the strip of enveloping insulating material of suitable length, there being transverse holes for screws by which the strip is attached to the surface of the wall of a building or other structure.

In the drawings, Figure 1 is an elevation, and Fig. 2 a cross-section, of the molded strip containing the conductors.

The metallic conductors may be of any desired size, according to the use to which the

conductor is put, the envelope or case being of insulating material composed of mineral wool and silicate of soda or potash molded around said electric conductor.

The strip shown contains two metallic conductors *a b*, embedded in said strip of insulating material herein set forth. These molded strips are to be of any length desired, and the metallic conductors are connected by metal plugs, which pass into the respective tubular ends of the conductors, and the opposing ends of the insulating material may be permanently connected by a cement capable of forming a union with said material. These metallic conductors and insulating envelopes are in the wiring of a structure joined up by T forms, bends, and elbow forms, of the same insulating material, with tubular or solid conductors therein, which coincide with the straight strips.

I provide holes passing from front to back and entirely through the strip and between the conductors for the insertion of screws by which said strip is attached in place, and I prefer to introduce short pieces of metal tubes in the mold and apply the composition around them in forming these screw-holes.

My insulating-envelope for the electric conductor is water and acid proof, and will not be injured by the melting of the metallic conductor.

I claim as my invention—

1. The metallic electric conductors having tubular ends and plugs to unite one length to the next and a fire and water proof covering around the metallic conductors, substantially as specified.

2. The metallic electric conductors having tubular ends and plugs to unite one length to the next and surrounding insulating material of mineral wool and silicate of soda, forming a rigid fire and water proof envelope to the conductors, substantially as specified.

3. The metallic conductors having tubular ends and a covering of mineral wool and silicate of soda, there being transverse holes for screws, in combination with metallic plugs

joining the metallic conductors at their ends, substantially as specified.

4. The electric conductor having tubular ends and a fire and water proof covering,
5 such as mineral wool and silicate of soda, and short transverse metallic tubes in the covering and forming holes for screws, in combination with metallic plugs joining the me-

tallic conductors at their ends, substantially as specified.

Signed by me this 23d day of October, 1890. 10

ALFRED W. SPERRY.

Witnesses:

GEO. T. PINCKNEY,
HAROLD SERRELL.