

(No Model.)

T. A. EDISON.
Safety-Conductor for Electric-Lights.

No. 227,226.

Patented May 4, 1880.

Fig. 1.

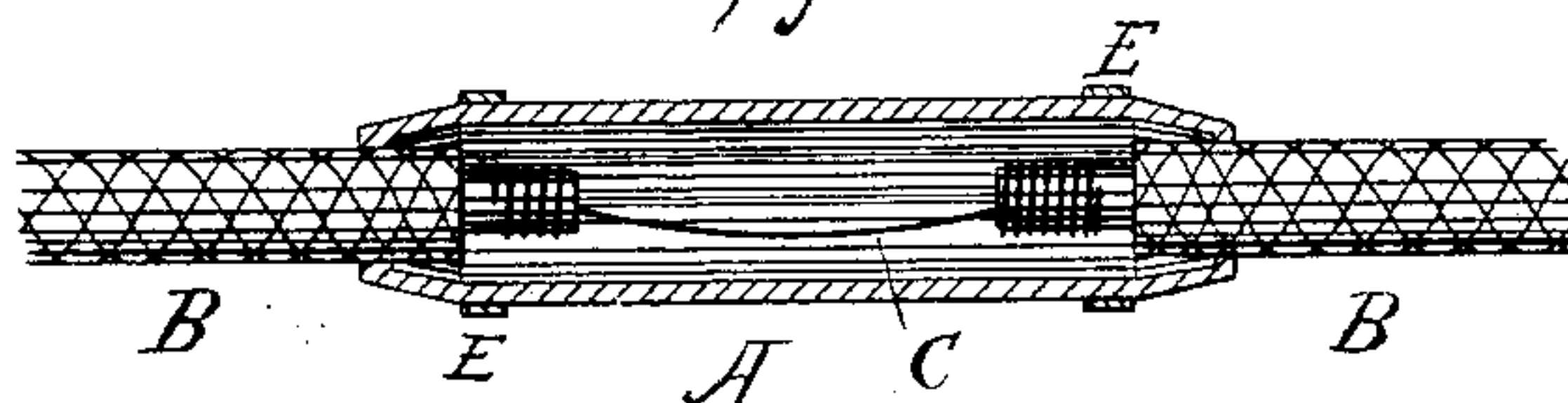


Fig. 2.

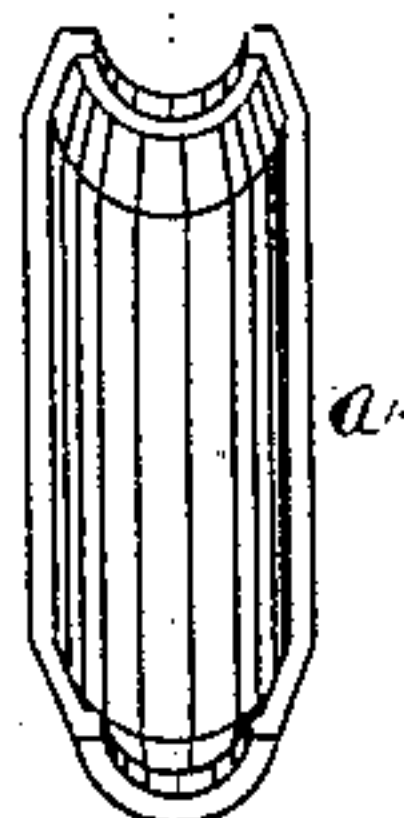
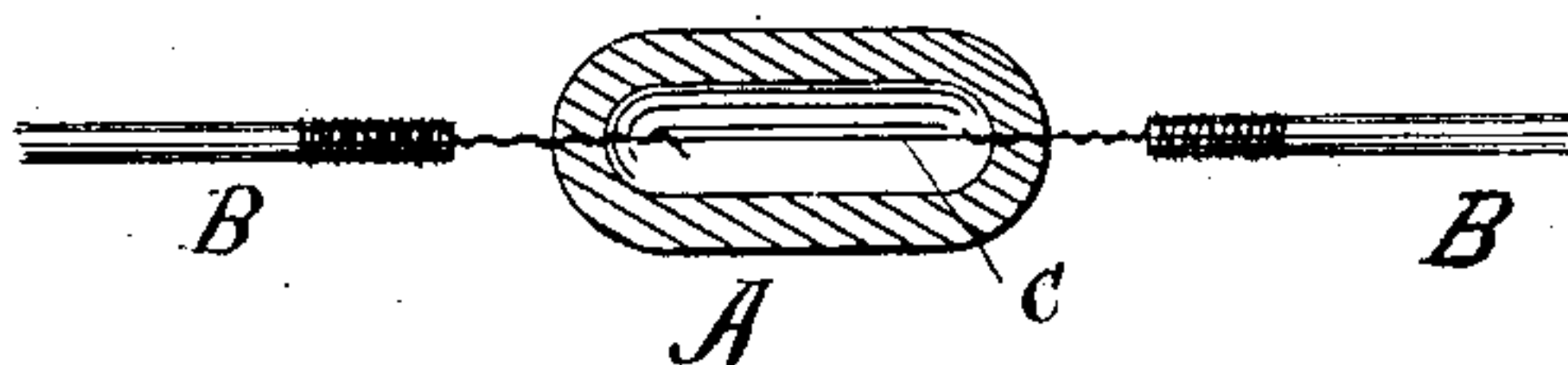


Fig. 3.



Attest:

Saml D. Mott
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Inventor:

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per
Dyer & Milner
Attys

UNITED STATES PATENT OFFICE.

THOMAS A. EDISON, OF MENLO PARK, NEW JERSEY.

SAFETY-CONDUCTOR FOR ELECTRIC LIGHTS.

SPECIFICATION forming part of Letters Patent No. 227,226, dated May 4, 1880.

Application filed March 25, 1880. (No model.)

To all whom it may concern:

Be it known that I, THOMAS A. EDISON, of Menlo Park, in the county of Middlesex and State of New Jersey, have invented a new and
5 useful Improvement in Conductors for Electric Lights; and I do hereby declare that the following is a full and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference
10 marked thereon.

In other applications for patents made by me I have shown a safety device for preventing an abnormal flow of current through any branch. This safety device consists of a piece
15 of very small conductor interposed in the main conductors of a house or in the derived circuit of a lamp. Preferably, one is interposed in the circuit of each lamp or other translating device. This small conductor has such a degree of
20 conductivity as to readily allow the passage of the amount of current designed for its particular branch, but no more. If, from any cause whatever, an abnormal amount of current, large enough to injure the translation devices
25 or to cause a waste of energy, is diverted through a branch the small safety-wire becomes heated and melts away, breaking the overloaded branch circuit. It is desirable, however, that the few drops of hot molten
30 metal resulting therefrom should not be allowed to fall upon carpets or furniture, and also that the small safety-conductor should be relieved of all tensile strain; hence I inclose the safety-wire in a jacket or shell of non-con-
35 ducting material, which, preferably, is secured to the ends of the large conductors, uniting them, not electrically, but as to tensile strain.

In the drawings, Figures 1 and 3 show different forms of jacket or shell, and Fig. 2 is a section or half of the form shown in Fig. 1. 40

B B is the main or ordinary conductor, severed, as shown, and C is the safety device or wire, capable of conducting the current ordinarily used in its particular circuit, but melting and thereby breaking the circuit when
45 the current is injuriously increased.

In Fig. 3 A is a simple shell placed over the safety-wire only. The preferable form is shown in Fig. 1, where A is a shell composed of two halves, *a*, one of which is shown in Fig. 50
2. This shell is made slightly tapering at the ends, and with a slight inward flange, so as to grasp firmly the wire B B.

The two halves are placed so as to form a complete cylinder, the ends grasping the wire
55 B B, and the hoops or bands E E slipped on.

This arrangement forms a shell or case for the safety-wire, and at the same time relieves it of tensile strain, the strain of the wire B B
60 being carried by the case.

What I claim is—

1. The combination, with the safety wire or device, of an inclosing case or shell, substantially as set forth.

2. The combination, with the safety-wire 65 and main severed conductor, of a shell or case inclosing the safety device or wire and relieving it from strain, substantially as set forth.

This specification signed and witnessed this 10th day of March, 1880.

THOS. A. EDISON.

Witnesses:

WM. CARMAN,
C. P. MOTT.