

(No Model.)

G. W. MCGILL.

INSULATED ELECTRIC CONDUCTOR.

No. 287,766.

Patented Oct. 30, 1883.

Fig. 1.

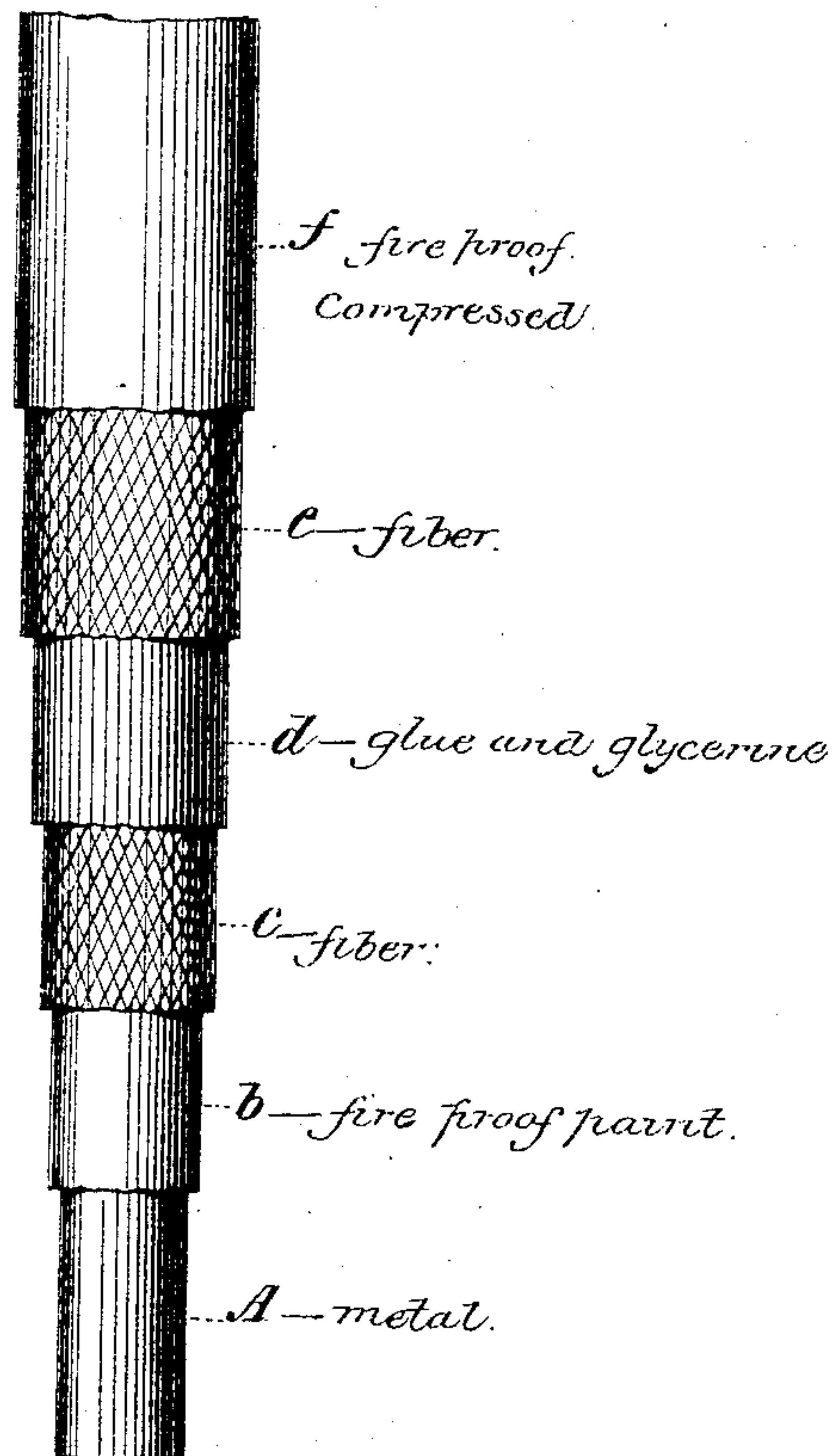
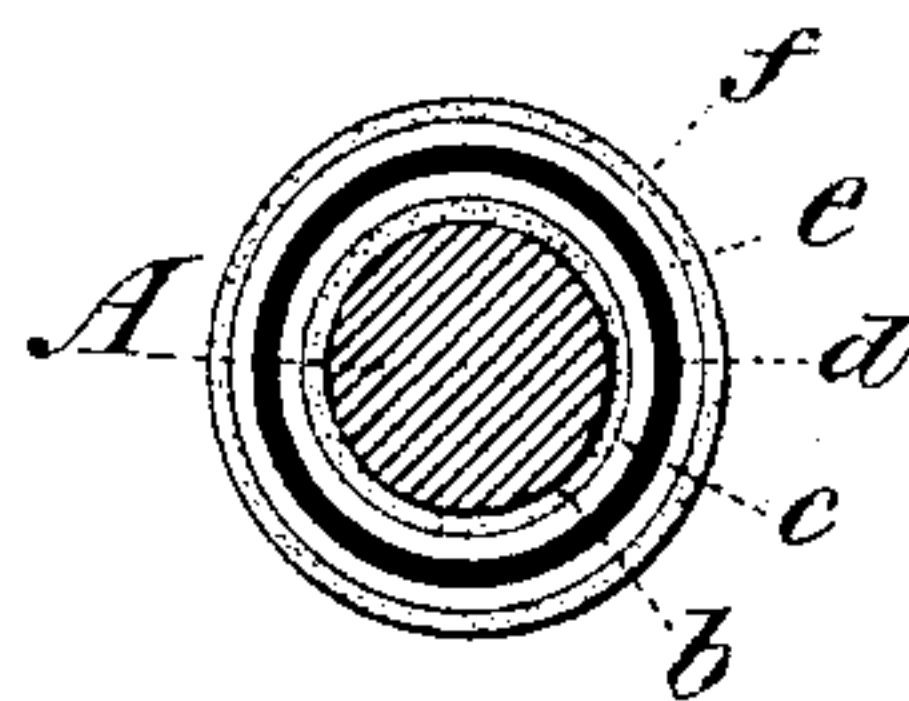


Fig. 2.



WITNESSES:
Gustave Dietrich
Harry McGill

INVENTOR

George W. McGill

UNITED STATES PATENT OFFICE.

GEORGE W. MCGILL, OF NEW YORK, N. Y.

INSULATED ELECTRIC CONDUCTOR.

SPECIFICATION forming part of Letters Patent No. 287,766, dated October 30, 1883.

Application filed September 7, 1883. (No model.)

To all whom it may concern:

Be it known that I, GEORGE W. MCGILL, of the city and county of New York, in the State of New York, have made a new and
5 useful Improvement in Insulated Electric Conductors, of which the following is a specification.

The object of my invention is the better insulating of electric conductors from the influence of moisture and heat, and the manner in which I effect this object is as follows:

I take a suitable electric conductor—such as a wire of copper or other suitable metal—and give the naked wire a continuous coating of fire-proof material—such as asbestos or other paint. Upon this coating I place a continuous covering of cotton or other suitable fibrous material, either by winding or braiding it thereon in the usual manner in which
20 wire is covered, and preferably while the fire-proof covering on the naked wire is in such moist condition as to cause it to saturate the fibrous covering. I now treat this fibrous covering with a coating of water-proof material, consisting of a mixture composed of one part of glycerine with three parts of glue. This composition has properties similar to those of india-rubber, and is impervious to water and moisture, and is elastic and tough. Over this
30 water-proof coating I put another covering of fibrous material, which is in turn treated with a coating of the fire-proof material first described, and after this outer coating of fire-proof material is dry the article is passed through a compressing-machine and calendered.

In the accompanying drawings, making part of this specification, Figure 1 is a longitudinal view of the insulated conductor, showing the manner in which the insulating material
40 is applied to the electric conductor; and Fig. 2 is a cross-section of the same.

A represents the metal wire or electric conductor.

45 b represents the first coating of fire-proof material.

c represents the first covering of fibrous material, and d represents the coating of water-proof material consisting of glue and glycerine.

e represents a second fibrous covering, and f the outside coating of fire-proof material.

In carrying out my invention the order in which the fire-proof material and the water-proof material are applied to the metal conductor may be varied and repeated without
55 avoiding my invention—that is to say, my water-proof material may be applied direct to the naked wire and a jacketing of fibrous material put over the same, and the fibrous jacket in turn treated with the fire-proof material; or the fibrous jacketing may be put upon the naked wire, the water-proof material on top of the fibrous jacketing, a second covering of fibrous material over the water-proof material, and an outer coating of fire-proof material over the second fibrous covering;
65 and the relative positions of the water-proof material, the fibrous covering, and the fire-proof material to the wire and to themselves may be still further changed and duplicated without materially changing the efficiency of the insulation or affecting the scope
70 of my invention.

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

1. An electric conductor provided with an insulating-covering consisting of a composition of glue and glycerine, substantially as and for the purposes described.

2. An electric conductor provided with an insulating-covering consisting of one or more jackets of fibrous material treated with a composition of glycerine and glue, substantially as and for the purposes described.

3. An electric conductor provided with an insulating-covering consisting of one or more fibrous jackets treated with a water-proof material composed of glycerine and glue, in combination with one or more fibrous jackets treated with fire-proof paint, substantially as
85 and for the purposes described.

GEORGE W. MCGILL.

Witnesses:

A. H. BRADLEY,
W. H. GREENLAND.