

(No Model.)

J. D. GOULD.
ELECTRIC CABLE.

No. 594,247.

Patented Nov. 23, 1897.

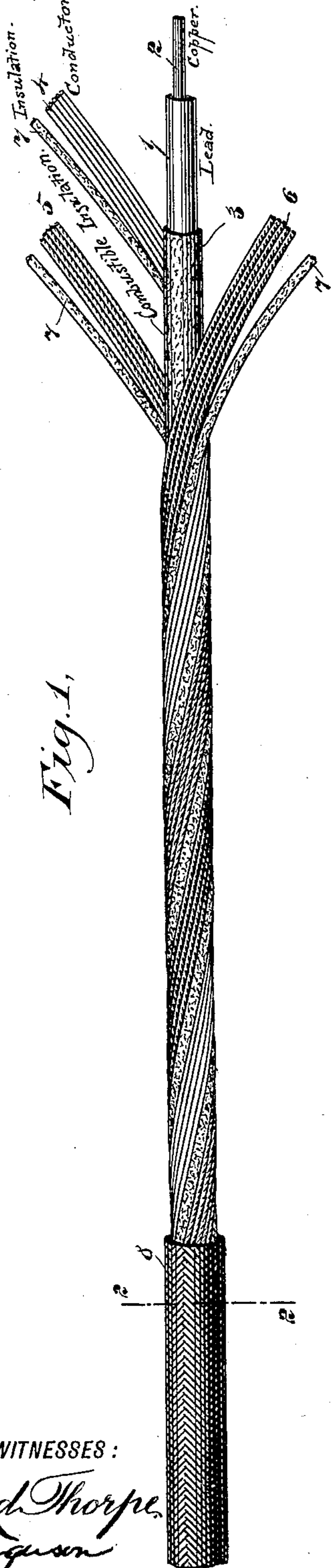
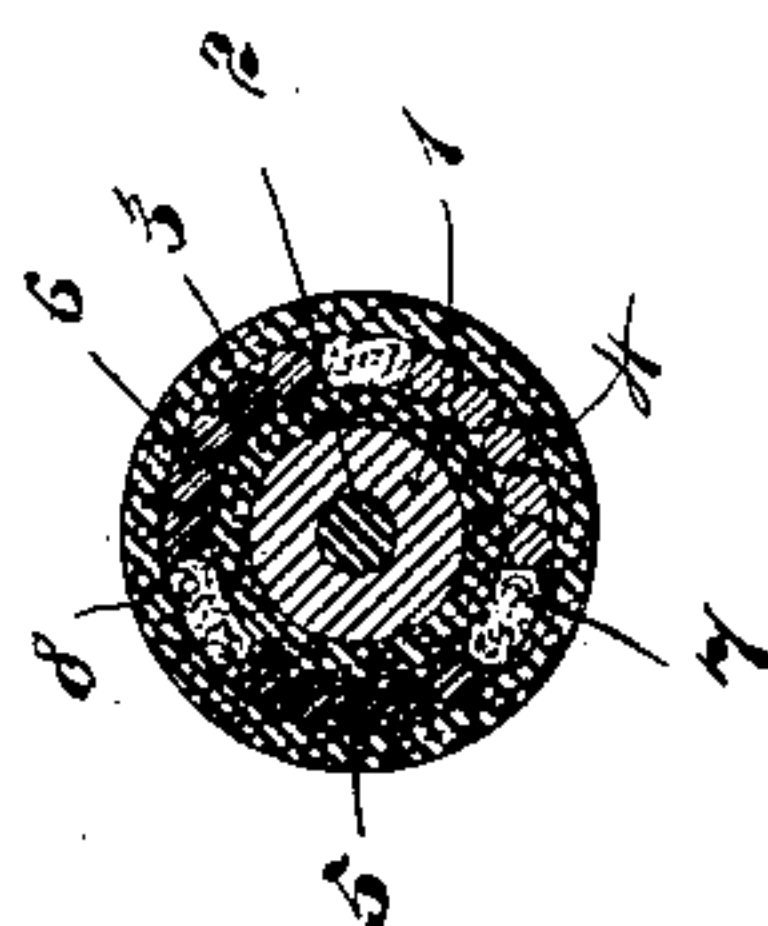


Fig. 1.

Fig. 2.



WITNESSES:

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ELECTRIC CABLE.

SPECIFICATION forming part of Letters Patent No. 594,247, dated November 23, 1897.

Application filed January 11, 1897. Serial No. 618,779. (No model.)

To all whom it may concern:

Be it known that I, JOHN D. GOULD, of Brooklyn, in the county of Kings and State of New York, have invented new and useful Improvements in Electric Cables, of which the following is a full, clear, and exact description.

This invention relates to cables for conducting electric currents; and the main object is to so construct the cable that the several conductors carried thereby may be readily distinguished one from another, thus facilitating the work and avoiding mistakes in making electrical connections, as well as saving the loss of time required at present in testing the conductors for the proper circuits; and a further object is to so construct the cable that several different kinds of electrical work may be simultaneously performed either with open or closed circuits or both together.

The invention consists in the construction and novel arrangement of parts, as will be hereinafter specified, and particularly pointed out in the appended claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in both views.

Figure 1 is a plan view of a cable embodying my invention with certain portions broken away to more clearly show other portions, and Fig. 2 is a section through the line 2 2 of Fig. 1.

The cable as here illustrated is designed for several circuits, including a fire-alarm circuit, and as such it comprises a core 1 of fusible material—such, for instance, as lead—and to increase its conductivity I may extend a wire 2, of copper or similar material, longitudinally through it. Surrounding the core 1 is an insulating material 3, which preferably has a less resistance to heat than the core 1. For this purpose paper or a suitable textile material may be employed.

Wound spirally around the insulating material 3 is a series of electric conductors 4, 5, and 6, and to separate one conductor from another a cord or strip of insulating material

7 is wound between adjacent conductors. The cable when thus constructed is provided with a covering 8 of insulating material.

I have here shown three conductors as wound spirally around the insulating material 3; but it is to be understood that there may be a greater or less number without departing from the spirit of my invention. Each of the conductors 4, 5, and 6, as here shown, consists of a number of strands laid parallel one with another and forming what may be termed a "ribbon" or "band" conductor. By this construction I provide the required area of conductivity in a completed cable of small circumference as compared with a cable consisting of a number of wires each having the conductive area of the ribbons or bands.

For the purpose of facilitating the work of making electrical connections I make the several conductors distinguishable one from another, and preferably this will be done by means of various colors. For instance, the conductor 4 may be of copper and nickel-plated or tinned, thus making it white, the conductor 6 of plain copper wire without covering, and the conductor 5 may be part copper and partly tinned or nickel-plated.

The manner of making electrical connections with this cable will be quite apparent without further description; but it is to be understood that I may employ the several distinctive conductors independently of a core comprising a fusible conductor. However, when the cable is used in connection with a fire-alarm system the fusible conductor will be connected with one pole of an alarm-actuating electromagnet and one of the outer conductors may be connected to the other pole of the magnet. Therefore should a fire take place in a building through which the cable is extended the heat generated will burn away the insulating material 3 and fuse the conductor 1 with the other conductor, thus automatically closing the circuit, and as this fusing may take place at any point it is obvious that the cable is practically a thermostat throughout its entire length.

The conductors 4, 5, and 6 may be employed

as complete metallic circuits for electrically-operated devices or each may be employed in connection with a ground-circuit.

Having thus described my invention, I
5 claim as new and desire to secure by Letters Patent—

1. An electric cable, comprising a fusible
core, an insulating material covering the
same, a series of conductors wound spirally
10 around said insulating material, and an insulating-cord wound between adjacent spirally-wound conductors, substantially as specified.

2. An electric cable, comprising a fusible
core, a copper or similar wire extended lon- 15
gitudinally through said core, an insulating
material covering the core, a series of con-
ductors wound spirally around said insulat-
ing material, and an insulating-cord wound
spirally around the insulating material be- 20
tween adjacent spirally-wound conductors,
substantially as specified.

JOHN D. GOULD.

Witnesses:

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