

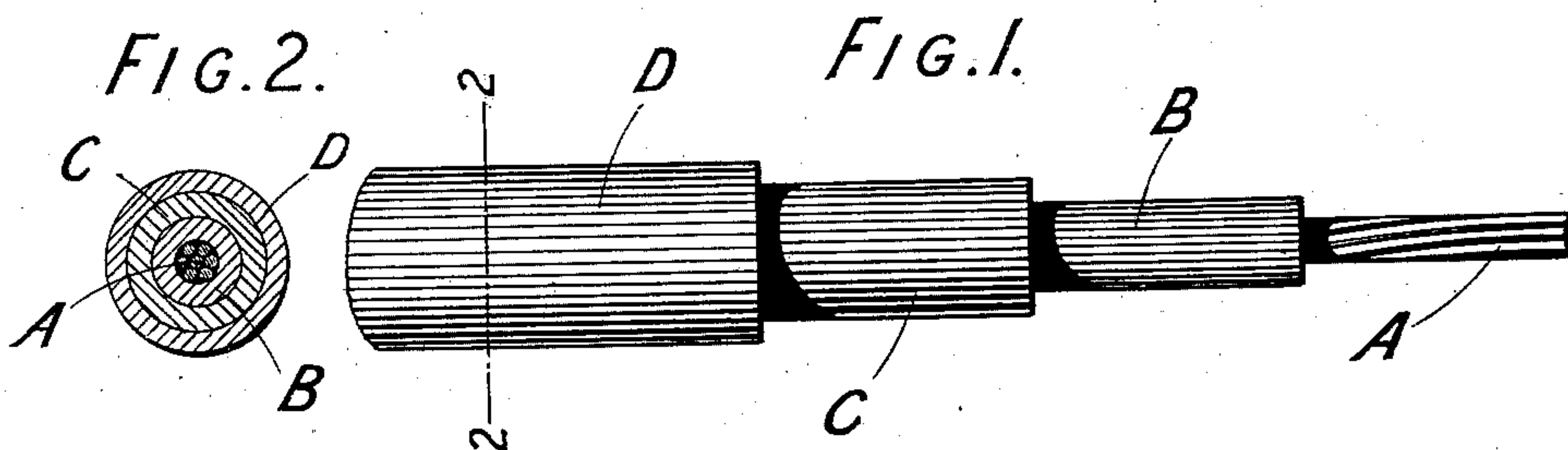
No. 654,871.

Patented July 31, 1900.

J. Y. BUCHANAN.
ELECTRIC CABLE.

(Application filed May 18, 1900.)

(No Model.)



Witness
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UNITED STATES PATENT OFFICE.

JOHN YOUNG BUCHANAN, OF EDINBURGH, SCOTLAND.

ELECTRIC CABLE.

SPECIFICATION forming part of Letters Patent No. 654,871, dated July 31, 1900.

Application filed May 18, 1900., Serial No. 17,147. (No model.)

To all whom it may concern:

Be it known that I, JOHN YOUNG BUCHANAN, a subject of the Queen of England, residing at Edinburgh, Scotland, have invented certain new and useful Improvements in or Relating to Electric Cables, (for which application for patent has been made in Great Britain under No. 22,102, dated November 4, 1899,) of which the following is a specification.

This invention relates to electric cables, and has for its object to construct a cable which may be of use for various purposes, but is particularly applicable for use in submarine work.

According to this invention a conductor of suitable form and construction is first insulated with a covering of gutta-percha. Over this covering is placed one or several coatings of suitable thickness formed of a compound composed of india-rubber and the substance commonly known as "ozocerite." The whole is finally inclosed in an outer coating of gutta-percha.

In the accompanying drawings, Figure 1 is a side elevation of one construction of electric cable according to this invention, parts of the various insulating-coatings being removed for the sake of clearness; and Fig. 2 is a transverse section of the same on the line 2 2 of Fig. 1.

Like letters indicate like parts throughout the drawings.

A is a conductor formed in the present example of seven wires stranded in the usual way. Around the conductor A is placed a coating B of gutta-percha. This coating B is surrounded by a covering C of a compound formed of india-rubber and ozocerite and the covering C is in its turn inclosed in a coating D of gutta-percha. In some cases a layer of india-rubber and ozocerite compound may be placed over the second gutta-percha coating.

In this case a third covering of gutta-percha is placed outside the second compound coating. In like manner other alternate coatings of gutta-percha and compound may be provided, but in all cases it is preferred that the innermost and outermost of such layers should be of gutta-percha. The india-rubber and ozocerite forming the compound may be combined in various proportions in accordance with requirements. The whole cable may be covered with an additional outer covering—such as sheathing or armoring, for example—if found desirable.

It is to be understood that the cable may include more than one conductor, each conductor being inclosed in a separate gutta-percha covering, and, if desired, entirely surrounded with the india-rubber and ozocerite compound. The conductors thus inclosed are surrounded with the outer gutta-percha coat as above described.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. An electric cable comprising a conductor having alternate coatings of gutta-percha and a compound of india-rubber and ozocerite the innermost and outermost of such coatings being of gutta-percha.

2. An electric cable comprising a conductor a coating of gutta-percha around the conductor a coating of a compound of india-rubber and ozocerite around the gutta-percha coating and another coating of gutta-percha around the compound coating substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOHN YOUNG BUCHANAN.

Witnesses:

JOSHUA DAWSON WATTS,
ARTHUR CARRICK.