

C. J. BEAVER AND E. A. CLAREMONT.
MANUFACTURE OF ELECTRIC CABLES.
APPLICATION FILED NOV. 27, 1918.

1,305,247.

Patented June 3, 1919.

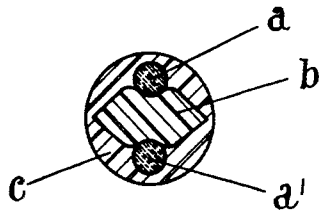


Fig. 1

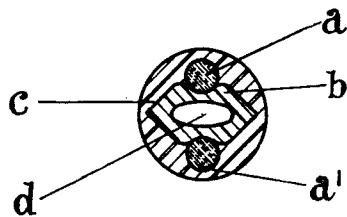


Fig. 2

Inventors:
C. J. Beaver,
E. A. Claremont.
by their Attorney, R. H. M. M. M.

UNITED STATES PATENT OFFICE.

CHARLES JAMES BEAVER, OF HALE, AND ERNEST ALEXANDER CLAREMONT, OF HIGH LEGH, ENGLAND.

MANUFACTURE OF ELECTRIC CABLES.

1,305,247.

Specification of Letters Patent.

Patented June 3, 1919.

Application filed November 27, 1918. Serial No. 264,377.

To all whom it may concern:

Be it known that we, CHARLES JAMES BEAVER, of Hale, Cheshire, England, and ERNEST ALEXANDER CLAREMONT, of High Legh, Cheshire, England, subjects of the King of Great Britain and Ireland, have invented certain new and useful Improvements in the Manufacture of Electric Cables, of which the following is a specification.

This invention relates to the manufacture of electric cables and comprises a modification or improvement of our invention described in the specification of United States Letters Patent No. 1,298,644.

In the said specification we described a twin core cable composed of two conductors separated by a strip of rubber or other suitable insulating material of sufficient thickness to insulate them with an outer covering consisting of two strips of rubber or other suitable insulating material, the edges of which were joined and rendered autogenous by pressure.

According to the present invention the two conductors are twisted or spiraled around one another and the strip of insulating material separating the conductors is made elastic and compressible so as to enable the twisted conductors to assume a longer lay with a correspondingly smaller internal diameter of the spirals; therefore, we make the strip of insulating material separating the two conductors of rubber in an elastic and compressible condition or other suitable material yielding the said qualities, and further, we may make said insulating material in the form of a hollow tube in order to increase its compressibility.

In the accompanying drawings we illustrate examples of our invention:—

Figure 1 being a cross section through the cable in which the conductors are separated by a solid or spongy elastic and compressible material, and Fig. 2 a similar cross section showing a hollow separating strip. In both figures, like letters indicate like parts.

a and a^1 are the conductors, b is the separating strip of insulating material of such thickness and such degree of elasticity and compressibility as to allow the desired de-

gree of extensibility of the cable as a whole.

c is the overall insulation completely inclosing the conductors a and a^1 . As described in our aforesaid Patent No. 1,298,644 the overall strips of insulation and the separating strip b are united by pressure and the cable is subsequently vulcanized. The material of which the overall insulation c is composed may be less compressible than the strip b for mechanical reasons, but must be sufficiently elastic to extend to the required degree. The thickness of the separating strip b is preferably great as compared with the minimum thickness of the overall insulation c .

In Fig. 2, the separating strip b is constructed with a central continuous air cavity running throughout its length as shown at d .

What we claim as our invention and desire to secure by Letters Patent of the United States is:—

1. A circular or approximately circular electric cable consisting of two conductors, insulation between such conductors composed of flexible insulating material in an elastic and compressible condition in the form of a strip not thicker than necessary to secure the required elasticity and compressibility and efficient insulation, and an exterior insulation composed of elastic material in the form of two strips respectively folded half around the cable and the edges of the three strips of rubber or other material caused to adhere and become autogenous by pressure with the conductors spiraled around one another substantially as described.

2. A cable as claimed in claim 1, having the strip of insulating material separating the conductors formed with a continuous central hollow or air cavity.

In witness whereof we have signed this specification in the presence of two witnesses.

CHARLES JAMES BEAVER.

ERNEST ALEXANDER CLAREMONT.

Witnesses:

C. A. NEALE,

J. PHILLIPS.