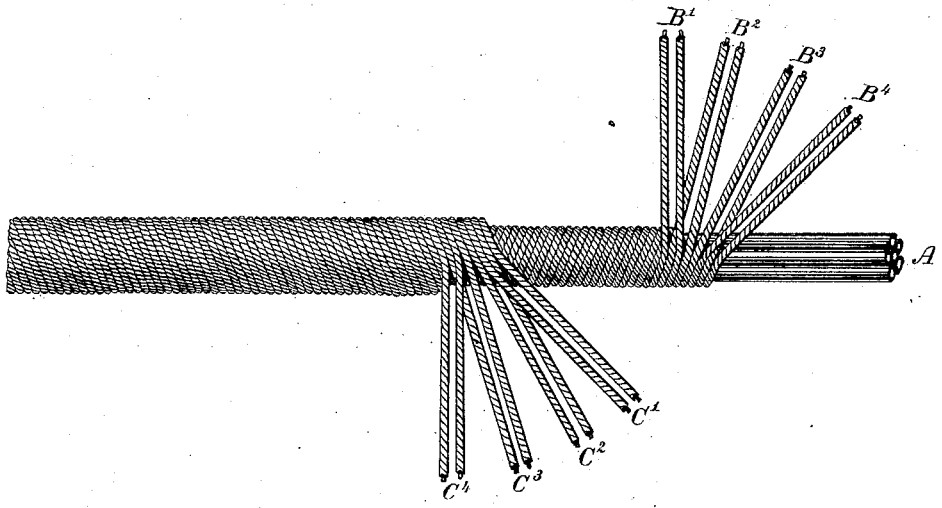
(No Model.)

W. JAMIESON.

CONDUCTOR FOR TELEPHONE AND TELEGRAPH PURPOSES.

No. 306,256. Patented Oct. 7, 1884.



WITNESSES

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WILLIAM JAMIESON, OF NEW YORK, N. Y.

CONDUCTOR FOR TELEPHONE AND TELEGRAPH PURPOSES.

SPECIFICATION forming part of Letters Patent No. 306,256, dated October 7, 1884.

Application filed October 30, 1883. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM JAMIESON, a subject of the Queen of Great Britain, residing in the city of New York, county and State of New York, have invented a new and useful Improvement in Conductors for Telephone or Telegraph Purposes, of which the following is a specification.

The object of my invention is to arrange the conducting-wires of which a telephone or telegraphic circuit is formed in such a manner that the inductive effects from other wires in their immediate proximity shall be entirely neutralized. In order to effect this result two or more conducting-wires covered, coated, or enveloped with suitable insulating material are wound helically upon a core composed of one or more insulated wires suitable for telegraphic purposes and connected with the earth at their terminals. The conductors forming the core are preferably arranged parallel with each other. The spirally-wound conductors are preferably grouped in pairs for the purpose of forming metallic circuits, the two wires forming each circuit being separated from each other by one or more intervening wires. This method of grouping, however, is not always essential, and I do not herein claim the same, as this feature is embodied in the subject-matter of another application filed by me February 15, 1884.

The manner of arranging conducting-wires when several circuits are grouped in one cable is shown in the accompanying drawing.

Referring to this drawing, A represents a group of insulated wires, which are surrounded by a layer of eight insulated conducting-wires wound spirally upon the core. The conducting-wires are grouped in pairs, consisting of alternate wires B', B^2, B^3, and B^4. The layer of conductors thus formed is in turn surrounded by a second layer of wires wound spirally in an opposite direction, and these conductors are preferably grouped in pairs, as shown at C', C^2, C^3, and C^4. The different layers, composed of a greater or less number of wires, and the number of layers, may be increased as desired. It is not necessary that alternate wires should be used in forming a circuit; but any convenient arrangement of wires may be employed—as, for instance, two adjacent wires may be employed.

I claim as my invention—

The combination, substantially as hereinbefore set forth, of the direct and return wires of an electric circuit helically wound upon a conducting-core comprising one or more single conductors.

In testimony whereof I have hereunto subscribed my name this 24th day of October, A. D. 1883.

WILLIAM JAMIESON.

Witnesses:
DANIEL W. EDGECOMB,
CARRIE E. DAVIDSON.