(No Model.)

A. F. MOORE.

Insulated Electric Conductor.

No. 229,735. **Patented July 6, 1880.**

FIG. 1.

FIG. 2.

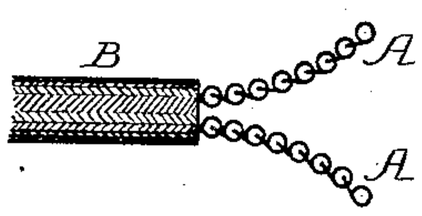


FIG. 3

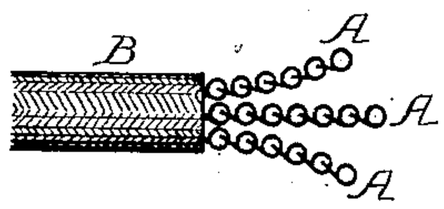
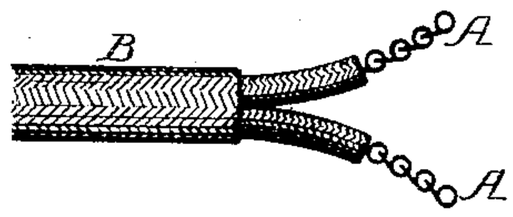


FIG. 4.



WITNESSES

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UNITED STATES PATENT OFFICE.

ALFRED F. MOORE, OF PHILADELPHIA, PENNSYLVANIA.

INSULATED ELECTRIC CONDUCTOR.

SPECIFICATION forming part of Letters Patent No. 229,735, dated July 6, 1880.

Application filed May 11, 1880. (No model.)

To all whom it may concern:

Be it known that I, ALFRED F. MOORE, a citizen of the United States, residing in Philadelphia, Pennsylvania, have invented an Improved Electrical Conductor, of which the following is a specification.

My invention relates to a new flexible conductor, especially adapted for use in connection with the receivers of telephones, telegraphic or telephonic switch-boards, and in other connections where flexibility and durability are important qualities.

In flexible conductors as heretofore used in the above-mentioned connections the wires used as conductors frequently become fractured owing to the continuous bending and kinking of the conductor. To obviate this difficulty I discard the ordinary system of clothed wires and adopt, in the manner described hereinafter, a chain or group of chains which have the same conducting property as wires, and are much more flexible than the latter and much less liable to break.

In the accompanying drawings, Figure 1 is a view of a portion of my improved conductor in its simplest form, and Figs. 2, 3, and 4 represent modifications of my invention.

The conductor shown in Fig. 1 consists of a closely-linked chain, A, and a cover, B, which may consist of wrappings, braid, rubber, or any other non-conducting material which can be made to closely envelop the chain, and which is of such a flexible character as to permit the free movement of the instrument or hand-piece to which the conductor is attached.

While a single chain may serve the desired purpose if the links are so closely connected as to insure metallic contact at all times and under all circumstances, I prefer to use two chains, as shown in Fig. 2, or three chains, as in Fig. 3, the links of these chains being comparatively open, but metallic connection being assured by the intimate contact of the links of one chain with those of the others, owing to the cover which binds the chains together.

A number of the improved conductors, each contained in a separate cover, may be combined with and enveloped by a cover, as shown in Fig. 4, when a compound conductor is required. Indeed, the chains may be arranged in different ways within such cover or covers as will insure the flexibility of the conductor. Different kinds of chains may also be used, due regard being had to flexibility and to the uninterrupted metallic contact of the links, no matter how the conductor may be bent or the instrument to which it is connected moved about.

I claim as my invention—

An electrical conductor in which one or more chains are combined with an insulating cover or wrapping which so envelops the chain or chains as to insure the metallic contact of the links, substantially as described.

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

ALFRED F. MOORE.

Witnesses:

JAMES F. TOBIN,

HARRY SMITH.