(No Model.)

C. H. McEVOY.

ELECTRICAL CONNECTING CORD.

No. 573,612. Patented Dec. 22, 1896.

Fig. 1.

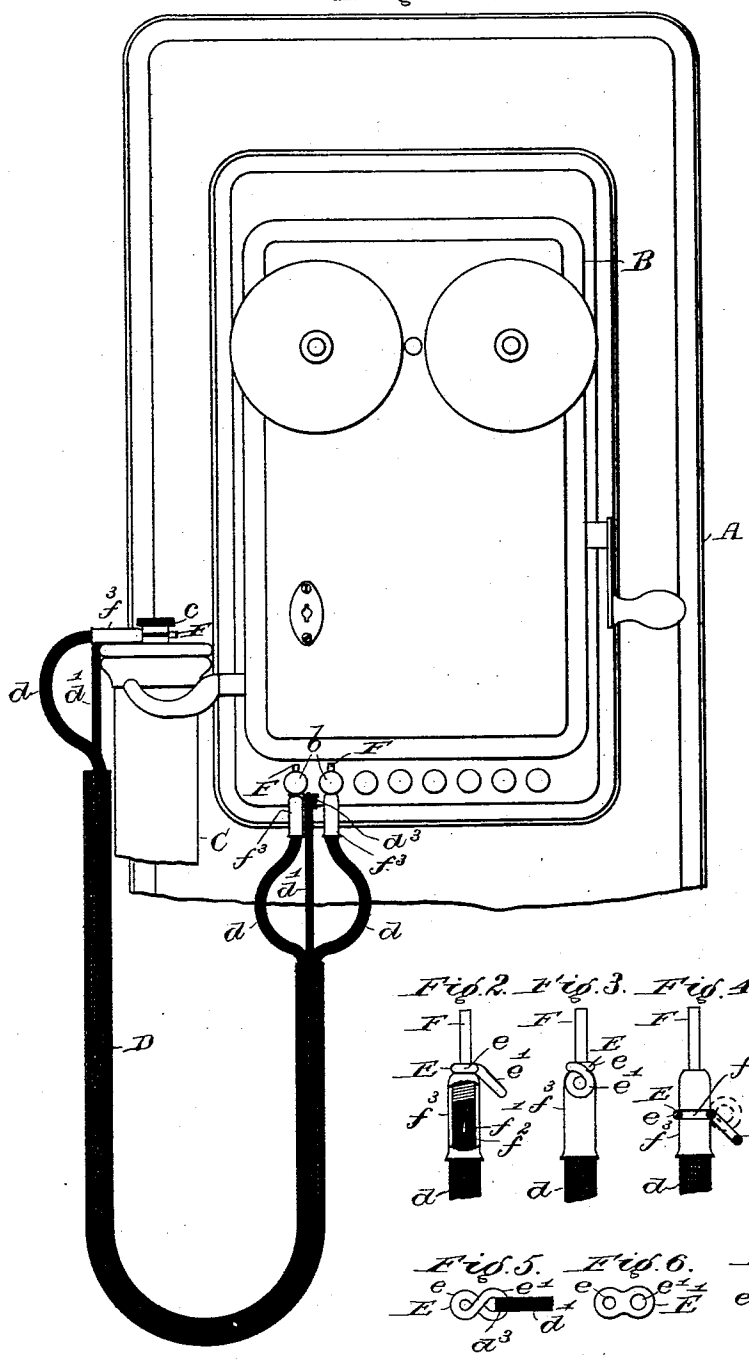

Fig. 2. Fig. 3. Fig. 4.

Fig. 5. Fig. 6. Fig. 7.

Witnesses—
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UNITED STATES PATENT OFFICE.

CHARLES H. McEVOY, OF LOWELL, MASSACHUSETTS.

ELECTRICAL CONNECTING-CORD.

SPECIFICATION forming part of Letters Patent No. 573,612, dated December 22, 1896.

Application filed February 24, 1896. Serial No. 580,357. (No model.)

To all whom it may concern:

Be it known that I, CHARLES H. McEVOY, a citizen of the United States, residing at Lowell, in the county of Middlesex and Commonwealth of Massachusetts, have invented a certain new and useful Improvement in Electrical Connecting-Cords, of which the following is a specification.

My invention relates to electrical connecting-cords; and it consists in the devices and combinations hereinafter described and claimed. Such electrical connecting-cords commonly consist of one or more (usually two or more) cores of tinsel-covered thread, each core being separately covered by a flexible braided covering, and the core or cores, together with a comparatively inextensible supporting-cord, being inclosed (except at their ends, which project from said common covering) in a common braided covering. Sometimes a helical spring is used for a core instead of the tinsel-covered threads.

The ends of the cores are secured, as by soldering, to tips of wire adapted to be secured in binding-posts in a well-known manner, and the ends of the supporting-cord are intended to be tied about a binding-post, or to some other thing which is stationary with respect to such post, in such a manner as to keep the conducting-cores slack and to prevent said cores being broken or separated from their tips; but the duty of properly attaching the supporting-cord is frequently so carelessly performed as to leave the part of said supporting-cord between its points of attachment longer than the cores, or said supporting-cord is carelessly tied and becomes accidentally untied or slips off. The most common use of these conductors is to connect the receiver of a telephone to binding-posts of the magneto-electric call-box, one end of the supporting-cord being usually tied into a screw-eye secured in said receiver. When the supporting-cord is slack, the continual bending of the conducting-cores by the moving about of the operator and the pulling of the connecting-cord is liable to break the cores away from the tips, and dropping said receiver is almost certain to separate said cores and tips. I avoid all danger of such separation by providing means of attaching the supporting-cord at each end thereof directly to a tip, so that the act of inserting the tip in the binding-post attaches the supporting-cord.

In the accompanying drawings, Figure 1 is a front elevation of a part of a telephone-backboard with magneto-electric call-box, receiver, and connecting-cord provided with my improvement; Fig. 2, a side elevation of a covered core, a tip and its shell, partly in section to show a way of attaching the tip-wire to the core, and the link for the attachment of the supporting-cord; Fig. 3, a front elevation of said tip-wire, its shell, the link, and a covered core; Fig. 4, a side elevation of the parts shown in Fig. 3, the link being attached to the shell part of the tip instead of to the tip-wire, as in Figs. 1 and 2; Fig. 5, a plan of a wire link with supporting-cord attached; Fig. 6, a plan of a sheet-metal link; Fig. 7, a plan of a wire link in which the eyes lie in different planes.

The backboard A, magneto-electric call-box B, hand-telephone or receiver C, and binding-posts *b c* are all of any usual construction and operation.

The connecting-cord D, comprising covered cores *d* and a supporting-cord *d'* and common covering d^2, is of substantially the common construction, except as hereinafter stated.

The tip F, which may be connected to the conducting-core *d* in any usual manner, is represented in Fig. 2 as having a tapering end *f'* arranged within the core *d* and projecting outwardly through the wall of the core and its covering, and hooked at f^2 on the outside of said core-covering, and as having a shell f^3, which surrounds the end of said core and covering, all substantially as shown and described in United States Patent No. 536,153, granted to me March 19, 1895.

I use a link or loop E, preferably a link of wire, as shown in Figs. 2 to 5, with two eyes *e e'*, one, *e*, of which is placed over the tip-wire F against the shell f^3, and preferably soldered thereto, and the other, *e'*, of which eyes receives an end of the supporting-cord *d'*, which is knotted or tied outside of said eye at d^3 to prevent said end from being drawn out of said eye, Fig. 5, or the eye *e* may surround the shell f^3, part of the tip being laid in an annular groove f^4 in said shell, as shown in Fig. 4.

The eyes *e e'* of the wire link may lie in the same plane, as shown in Fig. 5, or in planes at right angles with each other, as shown in Fig. 7.

A modified form E' of said link is shown in Fig. 6, the same being punched out of sheet metal and having eyes *e e'* punched therein.

I claim as my invention—

1. A flexible electric conductor, comprising a conducting-core, a conducting-tip in electrical connection with said core, a non-conducting supporting-cord and a link, arranged to surround said tip and to receive said supporting-cord.

2. A flexible electric conductor, comprising a conducting-core, a conducting-tip having a pin in electrical connection with said core and having a shell, a non-conducting supporting-cord and a link, arranged to surround the pin of said tip and to receive said supporting-cord.

3. A flexible electric conductor, comprising a conducting-core, a conducting-tip in electrical connection with said core, a non-conducting supporting-cord and a link having two eyes, one of which surrounds said tip and the other of which receives said supporting-cord.

In witness whereof I have signed this specification, in the presence of two attesting witnesses, this 15th day of February, A. D. 1896.

CHARLES H. McEVOY.

Witnesses:

ALBERT M. MOORE,

GRACE E. HIBBERT.