

(Model.)

C. McINTIRE.  
ELECTRIC WIRE.

No. 278,811.

Patented June 5, 1883.

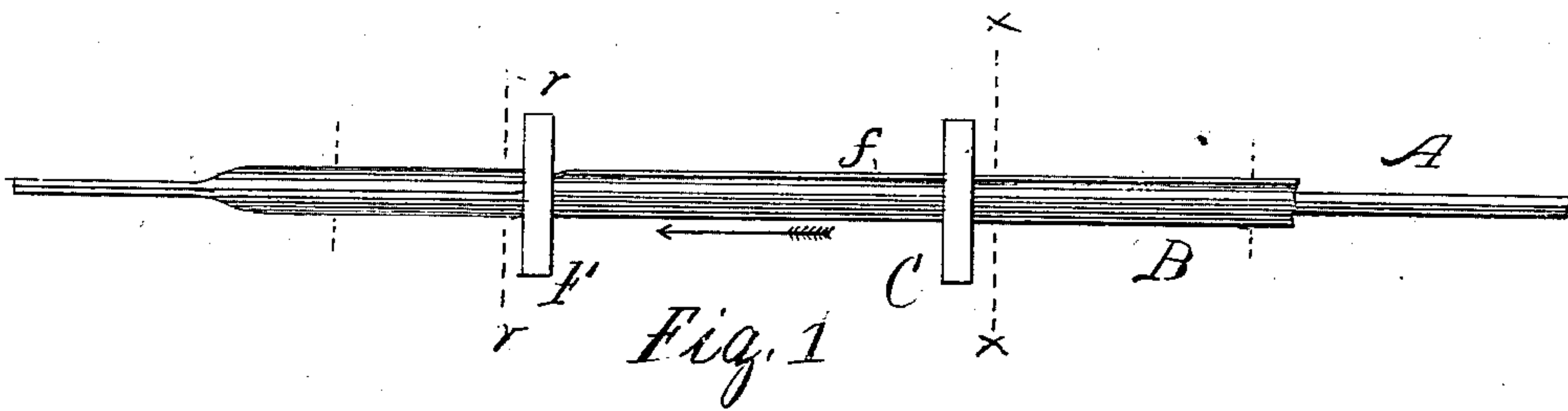


Fig. 2

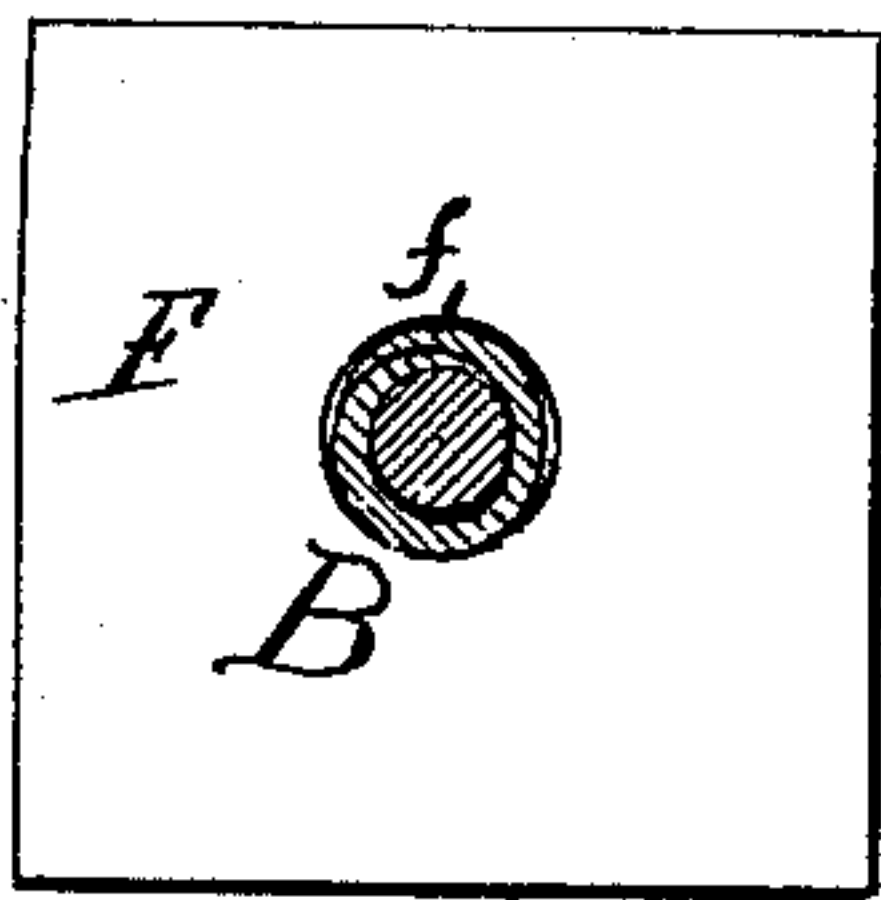


Fig. 3

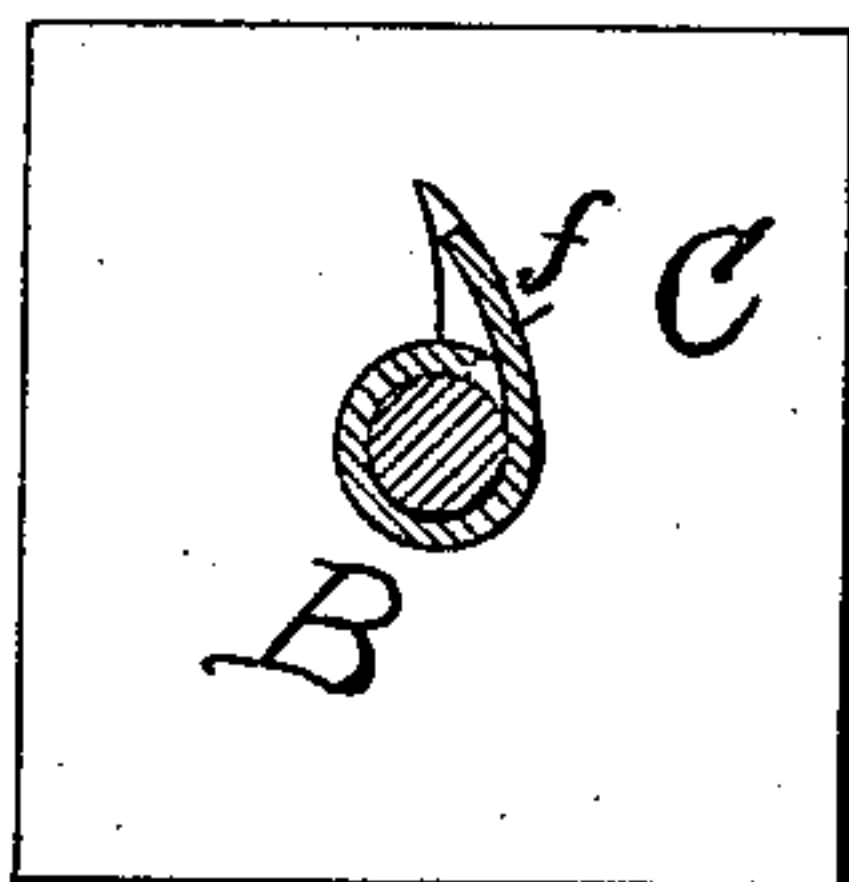


Fig. 6

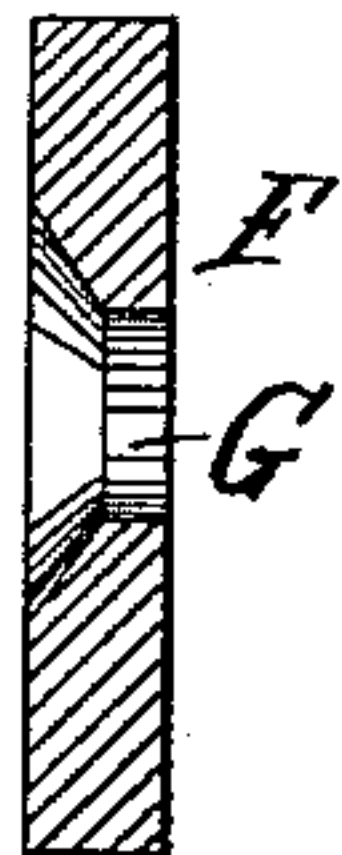


Fig. 4

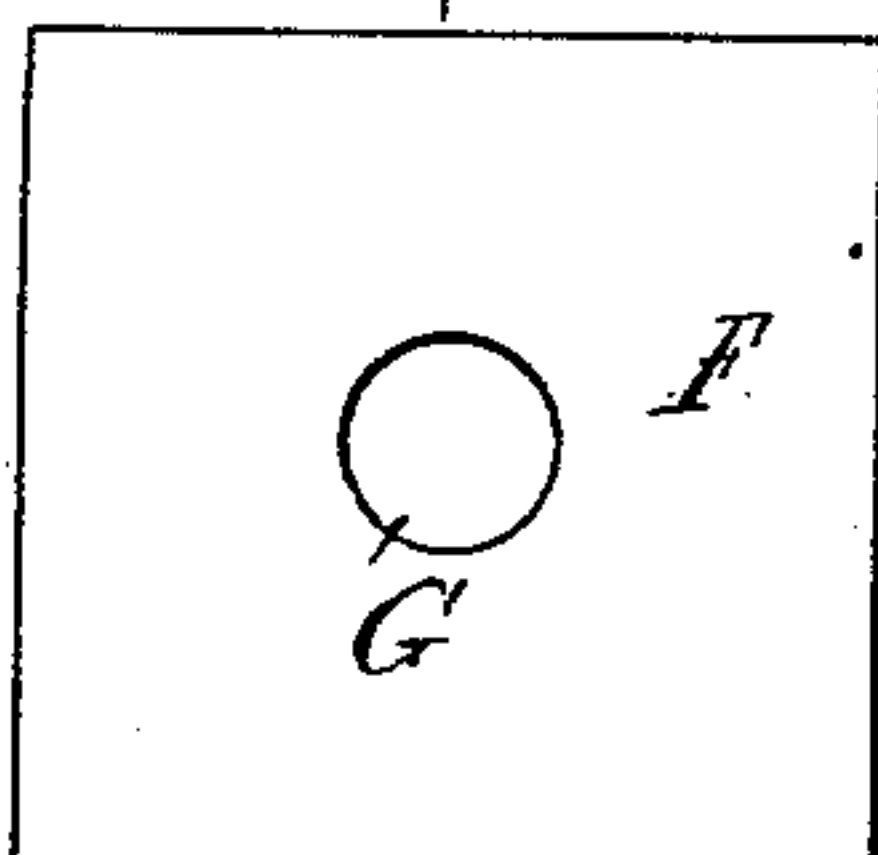


Fig. 5

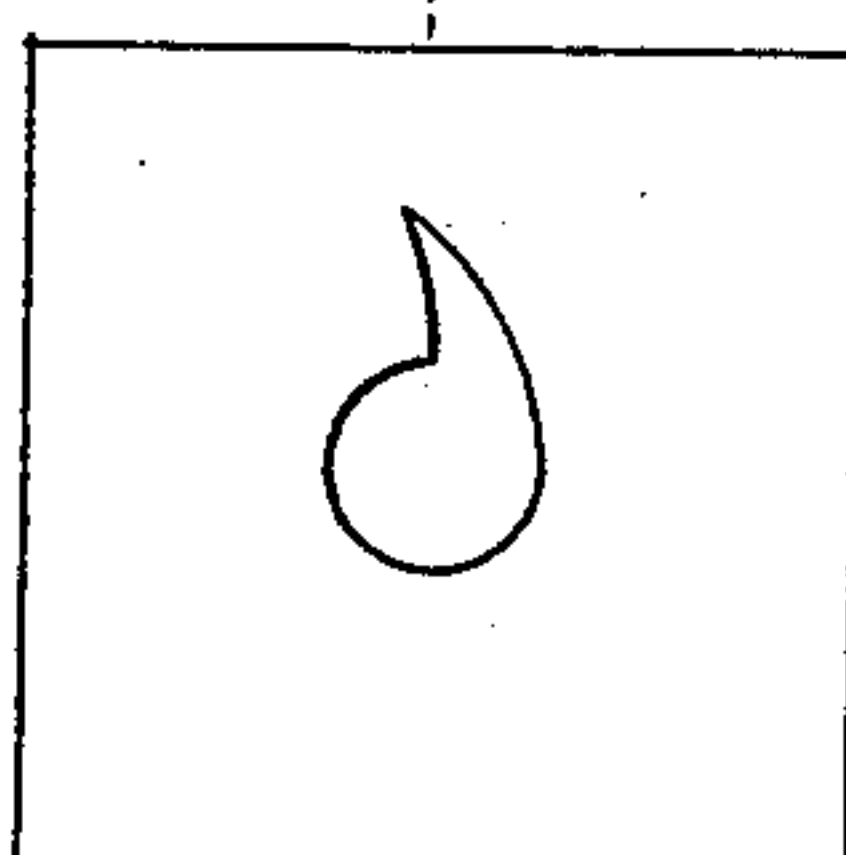


Fig. 7

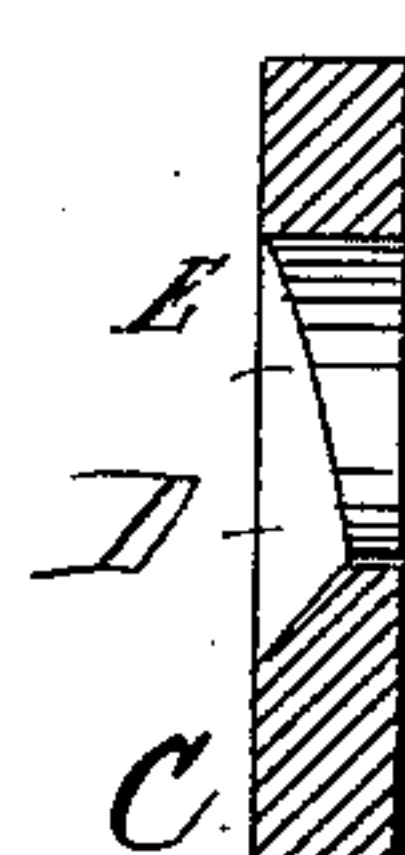


Fig. 8



Fig. 9



Fig. 10

Witnesses  
Frederick Vogt,  
Wilbur White.

Inventor  
Charles McIntire  
By Horace Harris

# UNITED STATES PATENT OFFICE.

CHARLES MCINTIRE, OF NEWARK, NEW JERSEY.

## ELECTRIC WIRE.

SPECIFICATION forming part of Letters Patent No. 278,811, dated June 5, 1883.

Application filed December 30, 1882. (Model.)

*To all whom it may concern:*

Be it known that I, CHARLES MCINTIRE, of Newark, in the county of Essex and State of New Jersey, have invented a new and useful  
5 Improvement in Electric Wires, of which the following is a specification.

This invention relates to that class of electric wires having a core-wire covered with a copper or other metallic covering, the core  
10 and covering being in intimate contact throughout their length, and co-operating to facilitate the transmission of electricity.

The invention consists in the improved electric wire constructed as herein set forth.

15 Heretofore in wires of the above-named class the edges of the covering abutted and were thus soldered together to exclude moisture from the core-wire; but thus constructed the wire was defective, inasmuch as that when  
20 the wire was twisted to unite the ends of two wires or under other circumstances the joint was liable to spread or the edges to separate and expose the core-wire to moisture, which resulted in the rusting of said core, and consequently the transmission of electricity was im-  
25 peded and the tensile strength of said wire reduced.

The object of my invention is to overcome the defects above set forth.

30 Referring to the accompanying drawings, in which similar letters of reference indicate like parts in each of the several figures, Figure 1 is a side view of the wire in the process of construction. Fig. 2 is a cross-section taken  
35 through line *x*; Fig. 3, a sectional view taken through line *v*. Figs. 4 and 5 are face views of the draw-plates; and Figs. 6, 7, 8, 9, and 10 are detail views.

In carrying out my invention I cover, by  
40 means of mechanism hereinafter described, but to which I do not limit myself, a core-wire, A, with a strip of copper or other metal, B, so that the two said parts are in intimate contact throughout their lengths, the edges of the  
45 metallic strip overlapping to provide sufficient

strength to prevent the said edges from separating when the wire is under the influence of torsion, or from separating under other conditions, and thus exposing the wire to the corroding influences of the atmosphere.

Referring to the mechanism which I prefer to use in the manufacture of the improved wire, C is the draw-plate, having a hole, D, with an opening, E, the said hole and opening resembling in a degree a comma in shape. In  
55 passing the wire through this plate a lap-section or flanged edge, *f*, of the copper strip is left as seen in Figs. 1, 3, and 9, the rest of the covering closing around the core-wire A. The wire core and the covering are then drawn  
60 through the plate F, having in it the round hole G to close down the lap-section and make a perfect joint. The wire is then soldered and thus completed.

I am aware that a lapped joint in a covering is not in itself new, as the same has been  
65 used to cover an insulated wire—that is to say, a core-wire covered with gutta-percha, shellac, tar, pitch, fibrous material, or other non-conducting materials in one or more layers. 70  
Around such insulated wire the said metallic covering having a lapped joint has been arranged; but said covering has not touched nor affected the conductivity of the core-wire, nor has it been employed to transmit electrical cur-  
75 rents, but merely to protect the insulating materials. Where two wires were connected the continuity of the coverings was broken.

Having thus described my invention, what I claim as new, and wish to secure by Letters  
80 Patent, is—

The improved electric wire composed of a core-wire and a covering arranged around and in contact therewith, the edges of said covering overlapping and being soldered together,  
85 substantially as herein set forth.

CHARLES MCINTIRE.

Witnesses:

HORACE HARRIS,  
FREDERICK VOIGT.