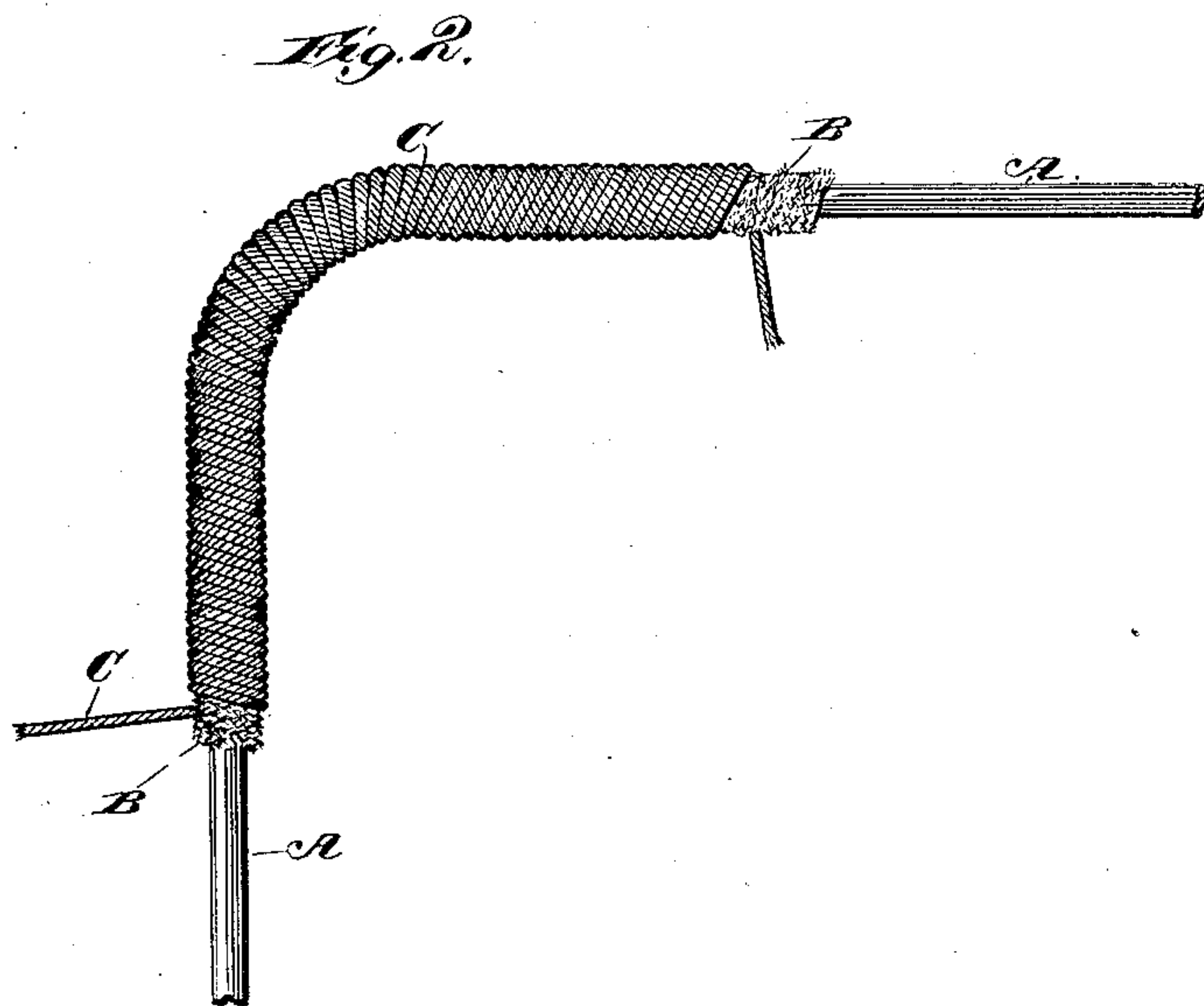
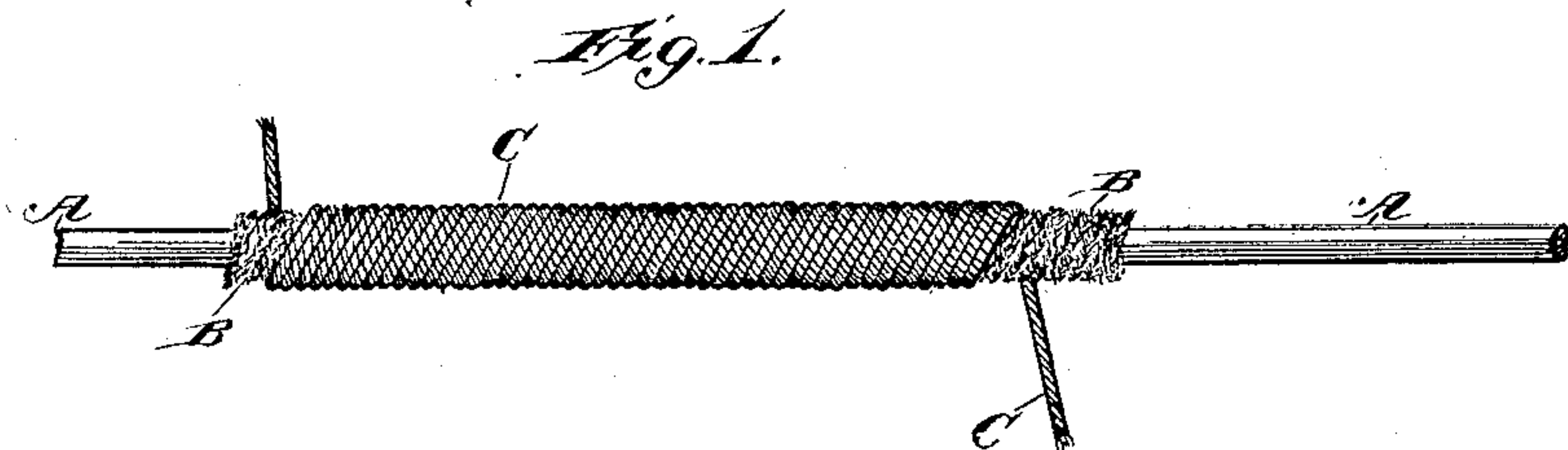


(No Model.)

T. A. SMYTH.  
INSULATING TELEGRAPH WIRE.

No. 278,753.

Patented June 5, 1883.



Witnesses.  
*Robert Everett,*  
*J. A. Rutherford*

Inventor.  
*Thos. A. Smyth.*

By *West & Bond.*  
Attys

# UNITED STATES PATENT OFFICE.

THOMAS A. SMYTH, OF CHICAGO, ILLINOIS.

## INSULATING TELEGRAPH-WIRES.

SPECIFICATION forming part of Letters Patent No. 278,753, dated June 5, 1883.

Application filed January 5, 1881. (No model.)

*To all whom it may concern:*

Be it known that I, THOMAS A. SMYTH, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Insulating Telegraph Wires or Cables, of which the following is a specification.

This invention relates to improvements in insulating telegraph wires or cables; and the invention consists in covering or incasing the wire or cable with the downy part of feathers, the same being secured upon and around the wire or cable by a suitable binding medium or otherwise.

In the accompanying drawings, Figure 1 illustrates a view of a straight wire insulated with the down of feathers according to my invention; Fig. 2, a view showing the invention applied to a wire in which there is an angle.

The letter A indicates a piece of wire such as is usually employed for telegraphic purposes, and B indicates the insulating covering or envelope of the down or feathers. This covering or envelope of down is wound or otherwise applied around the wire, so as to completely and perfectly envelop every part of the same, and it may be bound in position on the wire by means of cord, thread, or other suitable strip material, which may be wound exteriorly about the down in a spiral or other direction, as at C. A coating of shellac or other suitable compound may then be applied to the exterior of the cord binding, so as to effectually protect

the same against the influences of the atmosphere. The down of feathers can be readily and conveniently applied to the wire where there are any sharp angles, as shown in Fig. 2, and a wire covered or incased with an envelope of the downy part of feathers, according to my invention, will effectually and perfectly insulate the same, and wires so insulated can be laid singly or in a series within an inclosing-box, and there will practically be no transmission of electricity from one wire to the other.

I do not claim to have discovered the fact that feathers or other animal substances are non-conductors of electricity; but, so far as I am aware, the down of feathers has never heretofore been prepared so that it could be usefully applied, and, further, I believe that I am the first to apply the down of feathers to telegraph-wires to provide a perfect insulating covering thereto.

Having thus described my invention, what I claim is—

1. A wire or cable insulated by a covering or envelope composed of the down of feathers, substantially as described.

2. The combination, with a wire or cable, of a covering or envelope composed of the down of feathers secured in place by an exterior binding medium, substantially as described.

THOMAS A. SMYTH.

Witnesses:

O. W. BOND,  
B. A. PRICE.