D. BROOKS.

Wire for Telephones.

No. 238,195. Patented Feb. 22, 1881.

Fig. 1.

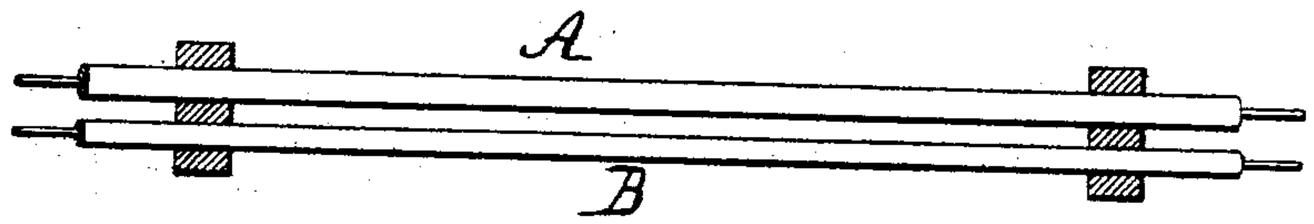
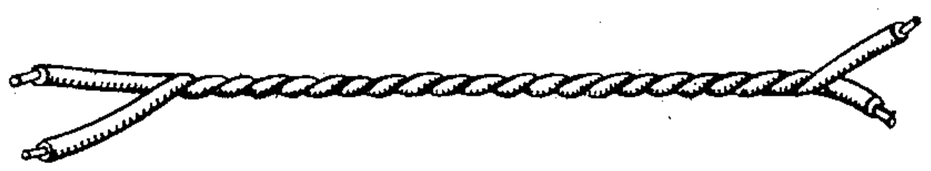


Fig. 2.



Witnesses
Thomas McElvain
Harry Smith

David Brooks
by his Attorneys
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UNITED STATES PATENT OFFICE.

DAVID BROOKS, OF PHILADELPHIA, PENNSYLVANIA.

WIRE FOR TELEPHONES.

SPECIFICATION forming part of Letters Patent No. 238,195, dated February 22, 1881.

Application filed March 4, 1878.

To all whom it may concern:

Be it known that I, DAVID BROOKS, of Philadelphia, Pennsylvania, have invented a certain new and useful Improvement in Telephone-Circuits, of which the following is a specification, reference being had to the accompanying drawings, in which—

Figure 1 represents a manner in which the two wires may be arranged in carrying out my invention, and Fig. 2 a modified arrangement of wires.

The objects of my invention are to obviate the disturbing effects of induction upon telephone-wires, or telegraph-wires when used telephonically, to prevent the same from being affected or influenced by electrical vibrations or disturbances, and to prevent signals or electrical currents from being transmitted from a telegraph-wire to an adjacent telephone-wire.

In telephonic apparatus, as usually constructed, with one wire and terminal earth-connections, disturbing inductive influences cause a tremulous noise or confused patter of sounds, and prevent the telephone-tones from being clearly transmitted and distinctly heard. To remove these disadvantages I substitute a metallic return-circuit for the present earth-terminal arrangement by connecting to the telephone-wire A, or to the telegraph-wire when used telephonically, an additional metallic wire, B, which runs parallel therewith and in close proximity thereto, but is suitably insulated therefrom, the wires being connected at each end to complete the metallic circuit. The proximity of the two telephone-wires to each other is such with reference to neighboring wires, which might cause disturbance in the telephone-circuit, that such disturbing inductive effects will be neutralized, or, in other words, the inductive effects in one wire will be counteracted by the inductive effects produced in the other wire of this telephone-circuit. Hence the telephonic tones will be clearly transmitted and distinctly heard, since they are free from disturbance by the said causes.

While the two wires should be parallel—that is, should be equidistant, or nearly so, from each other at all points along the line—it should be understood that they do not necessarily run in straight lines, for the two insulated wires may be twisted around each other, as shown in Fig. 2, for instance.

I claim as my invention—

The combination of a telephone-wire with an additional metallic wire running parallel with the said telephone-wire and in close proximity thereto, but insulated therefrom, the wires being connected at each end to complete the metallic circuit, all substantially as set forth.

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

DAVID BROOKS.

Witnesses:

BRISTOW HUNT,

CHAS. AUBRÈY DAY.