(No Model.)

W. A. JACKSON & J. C. CHAMBERS.

NEUTRALIZING COIL.

No. 322,725. Patented July 21, 1885.

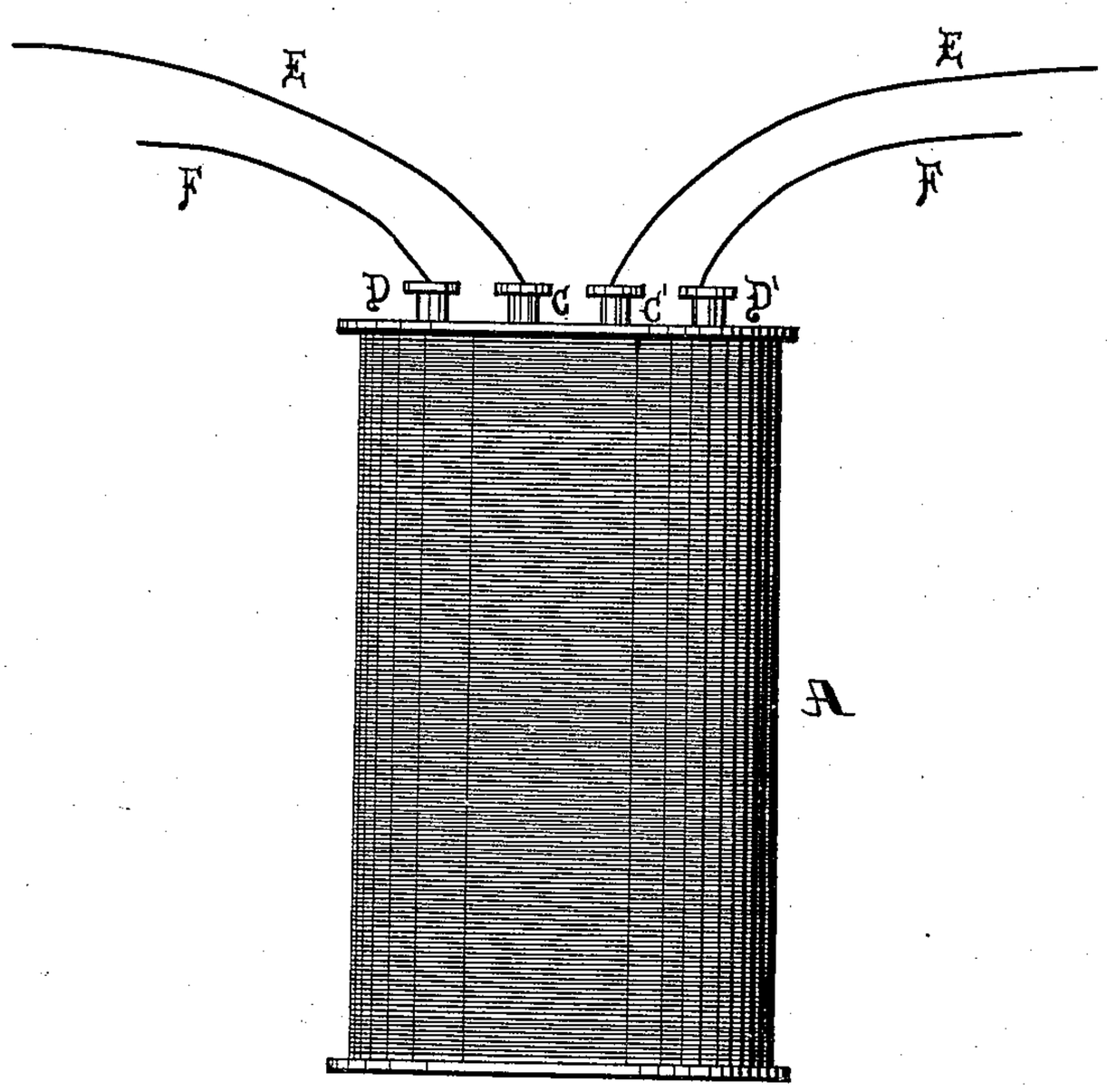

Fig. 1

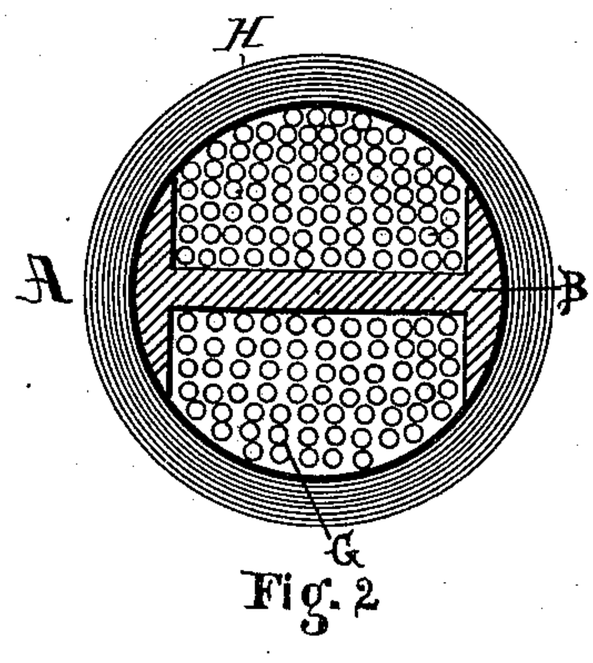

Fig. 2

ATTEST

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UNITED STATES PATENT OFFICE.

WILLIAM A. JACKSON AND JOSEPHUS C. CHAMBERS, OF DETROIT, MICH., ASSIGNORS TO GEORGE H. LOTHROP, TRUSTEE, OF SAME PLACE.

NEUTRALIZING-COIL.

SPECIFICATION forming part of Letters Patent No. 322,725, dated July 21, 1885.

Application filed August 15, 1884. (No model.)

To all whom it may concern:

Be it known that we, WILLIAM A. JACKSON and JOSEPHUS C. CHAMBERS, of Detroit, in the county of Wayne and State of Michigan, have invented a new and useful Neutralizing-Coil, of which the following is a specification.

Figure 1 is an elevation, and Fig. 2 is a section on *x x*, Fig. 1.

Our invention consists in a device for suppressing inductive disturbances in electrical circuits, hereinafter fully pointed out in the claims.

A represents the complete device, which we call the "neutralizing-coil." It consists of a soft-iron core, B, shown in the drawings as **I**-shaped, like the core of the well-known "Siemens armature," this being the most convenient form for winding, though any form may be used.

G represents a coil of insulated wire wound in the slot in core B, its ends being led to the binding-posts C C′.

H represents a helix or coil of insulated wire wound around the core and coil C, so that it crosses the convolutions of coil C at an angle, its ends being led to the binding-posts D D′.

E E represent a portion of a telephone-line, and F F a portion of another similar line. The line E E is broken at any convenient point for locating the neutralizing coil, and its broken ends connected to binding-posts C C′, so that the coil G becomes a part of the line E. The line F is similarly broken, and its ends connected with binding-posts D D′, so that the coil H becomes a part of the line F. The result is that all currents which pass through either line are brought into electrical proximity to an insulated conductor, which crosses the line at an angle, and while this does not affect the passage of the telephonic-currents all induced currents on either line are neutralized in the manner explained in an application for a patent filed by us on the 31st day of May, 1884. More than one of these coils may be used in two parallel telephone-lines, if desired.

What we claim as our invention, and desire to secure by Letters Patent, is—

1. A neutralizing-coil composed of two coils of wire insulated from each other and wound at an angle with each other, and each adapted to form a portion of a telephonic circuit.

2. In combination with two telephone-circuits, one or more neutralizing-coils, each having therein two separate conducting-wires insulated from and at an angle with each other, each of which forms a part of one of said telephone-circuits.

3. The combination, with the telephone-lines E F, of the neutralizing-coil A, formed by a portion of each line wound into a coil, said coils being wound at an angle with each other, substantially as shown and described.

WILLIAM A. JACKSON.
JOSEPHUS C. CHAMBERS.

Witnesses:
GEO. H. LOTHROP,
SUMNER COLLINS.