

(No Model.)

D. DRAWBAUGH.
INDUCTION COIL.

No. 344,818.

Patented July 6, 1886.

Fig. 1.

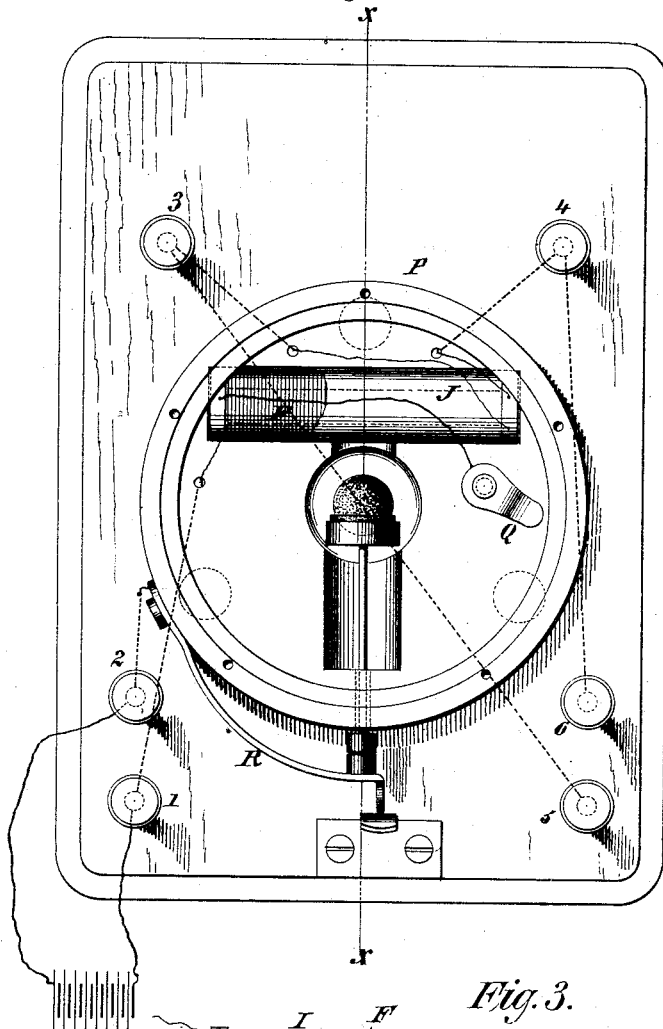


Fig. 2.

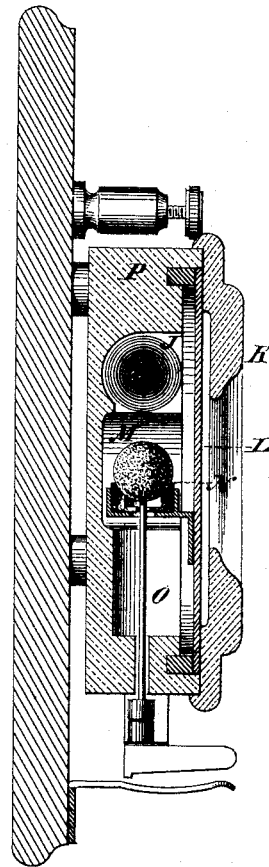
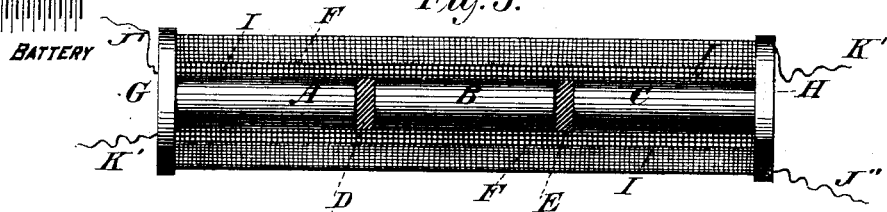


Fig. 3.



WITNESSES:

Gustave Dietrich
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UNITED STATES PATENT OFFICE.

DANIEL DRAWBAUGH, OF EBERLY'S MILL, PENNSYLVANIA, ASSIGNOR TO
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INDUCTION-COIL.

SPECIFICATION forming part of Letters Patent No. 344,818, dated July 6, 1886.

Application filed November 12, 1883. Serial No. 111,546. (No model.)

To all whom it may concern:

Be it known that I, DANIEL DRAWBAUGH, of Eberly's Mill, Cumberland county, Pennsylvania, have invented a new and useful Improvement in Induction-Coils, of which the following is a specification.

The invention relates to an improved form of induction-coil, adapted for use in telephones and other apparatus, that are often made of such a shape that the limited space necessitates the coil being constructed of long and narrow form, in order to obtain the desired induction effect. It is well known, however, that the induced currents in a long narrow induction-coil having a single continuous core are not reversed quickly and sharply, and hence that such a coil is ill adapted for telephonic purposes.

My present invention consists in an induction-coil of the aforesaid shape, which is exceedingly sensitive, and which is especially well suited for telephonic use.

In the drawings hereto annexed I show my induction-coil arranged in a telephone, the instrument being of a form necessitating a coil of this shape, in order to obtain the best results from its use as a telephone-transmitter.

The invention consists, more particularly, in an induction-coil having a core transversely divided into two or more sections, or, in other words, containing a number of short cores placed end to end, pieces of non-inductive material being arranged between the ends of the cores or core-sections.

In the accompanying drawings, Figure 1 is a front view of a telephone-transmitter containing my improved induction-coil, the diaphragm of said transmitter being removed, in order to show the internal arrangement. Fig. 2 is a vertical section on the line *x x* of Fig. 1. Fig. 3 is an enlarged partial longitudinal section of the induction-coil.

Similar letters of reference indicate like parts.

The induction-coil is shown at J, Figs. 1 and 2.

Referring more particularly to Fig. 3, A B C is the divided core or series of cores, and D

and E are pieces of non-inductive material placed between the ends of said core. I is the primary coil surrounding said core, and F is the secondary coil. G and H are the heads or flanges. J' and K' are the terminals of the primary coil, and J'' and K'' the terminals of the secondary coil.

The particular construction of telephone-transmitter here shown, the conformation and arrangement of the case and of the electrodes, and, generally, all other parts and portions of the apparatus excepting the induction-coil, which specifically forms the object of this application, are herein disclaimed, the said parts and their various combinations and arrangement having already been fully described and claimed by me in other applications already filed, or to be filed simultaneously herewith.

Referring to Figs. 1 and 2, which show my improved form of induction-coil applied to a telephone-transmitter, P is the box or case of the instrument, having a hollow or recess to receive the coil J. K is the cover; L, the diaphragm; M and N, the carbon electrodes; O, a metal rod supporting the electrode M, the said rod resting upon and being supported by the spring R. The circuits in the instrument proceed as follows: From the battery to the binding-post 1, to the primary I of the induction-coil J, to a contact-piece, Q, to a contact-piece on the diaphragm, and thence by a wire (these parts not being shown) to the electrodes N and M, to the rod O, to the spring R, to the binding-post 2, and thence to the battery. The secondary wire F of the induction-coil proceeds to the line by the binding-posts 3 and 4, from which posts extend wires to the binding-posts 5 and 6, to which a receiving-instrument may be attached.

The operation of the instrument is fully set forth in the other applications above referred to, and is therefore not here explained.

I claim as my invention—

1. An induction-coil having two or more cores or core-sections placed end to end, and not in contact, substantially as described.

2. An induction-coil having two or more cores or core-sections placed end to end, and

having interposed pieces of non-inductive material arranged between the proximate ends of said cores or core-sections, substantially as described.

the primary and secondary coils, substantially as described.

DANIEL DRAWBAUGH.

- 5 3. In an induction-coil, the combination of the cores or core-sections A B C, the interposed pieces of non-inductive material, D and E, and

Witnesses:

FRED. M. OTT,
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