No. 688,915. Patented Dec. 17, 1901.

D. H. WILSON.

INDUCTION COIL.

(Application filed Mar. 28, 1901.)

(No Model.)

Fig. 1.

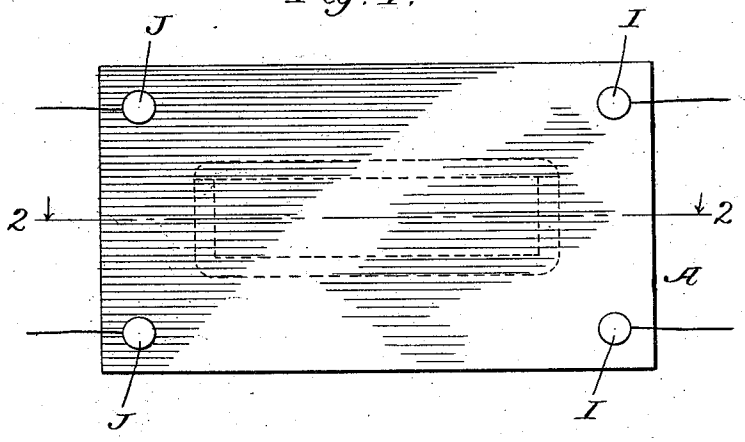


Fig. 2.

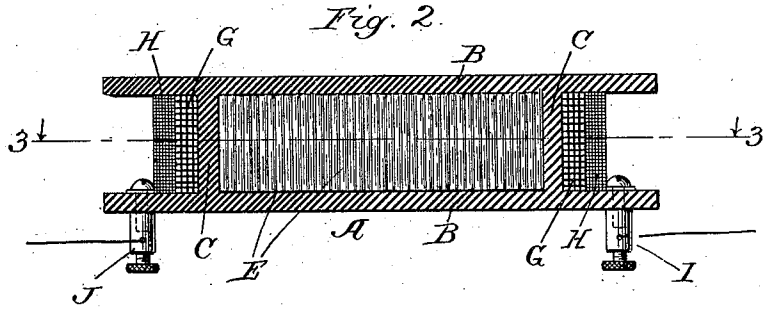
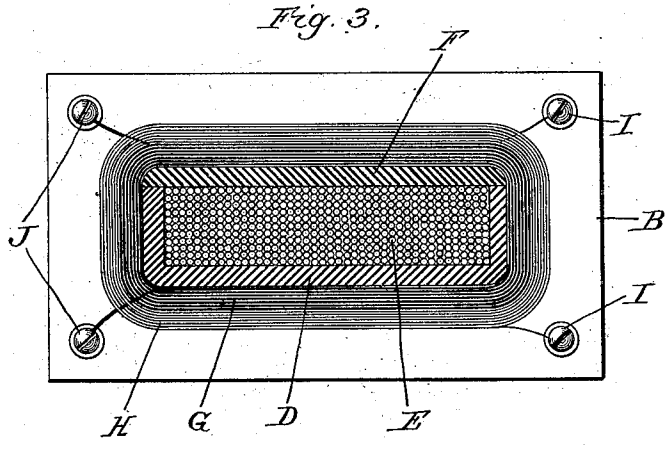


Fig. 3.



Witnesses,
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by Parker & Burton
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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

DAVID H. WILSON, OF CHICAGO, ILLINOIS.

INDUCTION-COIL.

SPECIFICATION forming part of Letters Patent No. 688,915, dated December 17, 1901.

Application filed March 28, 1901. Serial No. 53,270. (No model.)

To all whom it may concern:

Be it known that I, DAVID H. WILSON, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Induction-Coils, of which the following is a specification.

My invention relates to induction-coils, and has for its object to provide a new and improved induction-coil particularly adapted to be used in connection with telephone systems.

My invention is illustrated in the accompanying drawings, wherein—

Figure 1 is a side elevation of an induction-coil embodying my invention. Fig. 2 is a section on line 2 2, Fig. 1. Fig. 3 is a section on line 3 3, Fig. 2.

Like letters refer to like parts throughout the several figures.

One of the objects of my invention is to provide an induction-coil having a laminated core made up, preferably, of a series of short narrow strips of magnetic material, such as pieces of iron wires or the like, said laminated core completely surrounded by and sealed up in a non-conducting box or a box of non-magnetic material.

In order to make my invention clear, I have illustrated a particular form or construction; but it is of course evident that the form, construction, and arrangement of the parts may be greatly varied.

As illustrated in the drawings, I provide a box A of some suitable non-magnetic material. This box may be made in any desired manner, and the parts may be assembled in any way desired. As herein shown, the box consists of two end plates B, connected together by the side pieces C and the bottom piece D, said latter pieces being preferably integral with the end plates. The box is filled with a series of small bars or pieces or wires of magnetic material E, which forms the laminated core of the induction-coil, and a cover F is provided, which seals the box, preferably hermetically. The end plates B preferably project beyond the exterior surface of the box—that is, the top, sides, and bottom—and serve to hold the coils in position. The primary and secondary coils G and H are wound about the box, as shown, and are connected to suitable binding-posts I and J. I prefer to form the core of a series of short pieces, so that the length of the core will be much less than the width. The several pieces constituting the laminated core are simply filled into the box in making the device, and when the box is full the lid is placed in position and preferably sealed, so as to form a tight compartment.

I have found that when this construction is used to make coils for telphone systems I can obtain results which greatly exceed the results obtainable from the ordinary induction-coils used for this purpose.

I claim—

1. An induction-coil, comprising a box of non-magnetic material, a series of comparatively short pieces of magnetic material contained in said box and forming a laminated core, said pieces of magnetic material running substantially parallel to the short dimension of the box and a primary and secondary coil wound about said box.

2. An induction-coil, comprising a laminated core consisting of a series of pieces of magnetic material, a holding or receiving device therefor, having end pieces or plates of non-magnetic material against which the ends of the pieces which form the core abut, the distance between the end plates forming the short dimension of the box and a primary and secondary coil wound about said core.

3. An induction-coil, comprising a box of non-magnetic material, a series of pieces of magnetic material contained therein and forming a laminated core, the ends of said pieces abutting against the ends of the box, said ends formed of plates which project past the exterior boundary of the box, and a primary and secondary coil wound within the space formed by said projecting ends.

DAVID H. WILSON.

Witnesses:
FANNY B. FAY,
HOMER L. KRAFT.