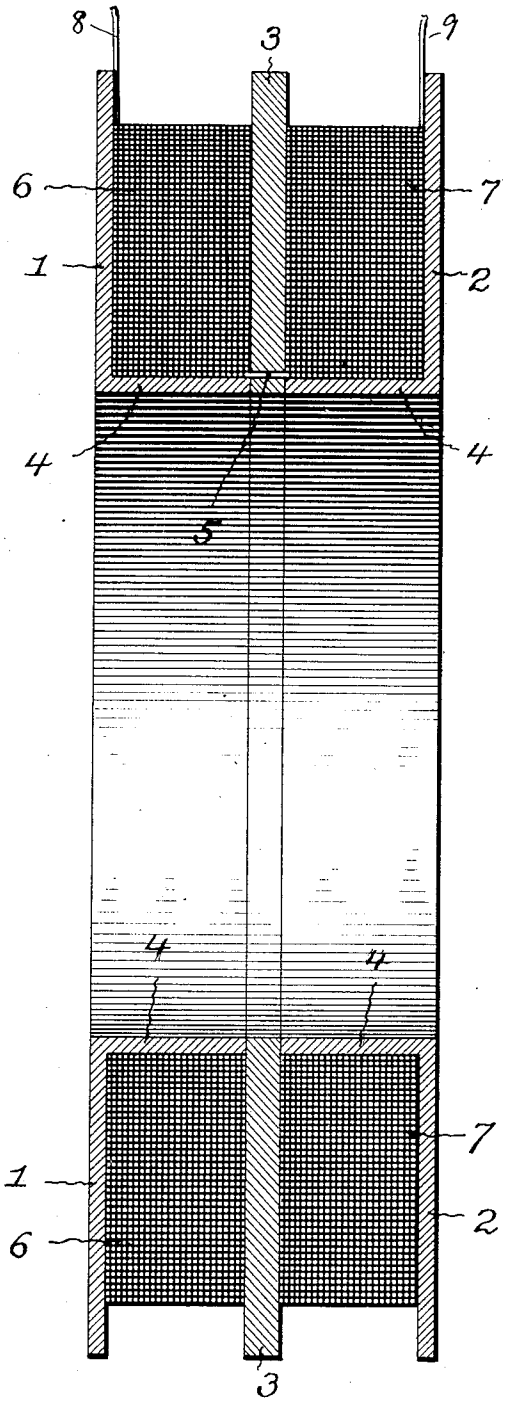
No. 862,506. PATENTED AUG. 6, 1907.

C. A. PFANSTIEHL.

INDUCTION COIL UNIT.

APPLICATION FILED DEC. 27, 1906.



Attest:
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UNITED STATES PATENT OFFICE.

CARL A. PFANSTIEHL, OF HIGHLAND PARK, ILLINOIS, ASSIGNOR, BY DIRECT AND MESNE ASSIGNMENTS, TO PFANSTIEHL ELECTRICAL LABORATORY, OF NORTH CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS.

INDUCTION-COIL UNIT.

No. 862,506. Specification of Letters Patent. Patented Aug. 6, 1907.

Application filed December 27, 1906. Serial No. 349,725.

To all whom it may concern:

Be it known that I, CARL A. PFANSTIEHL, a citizen of the United States of America, and a resident of Highland Park, in the county of Lake and State of Illinois, have invented certain new and useful Improvements in Induction-Coil Units, of which the following is a specification.

This invention relates to that class of induction coil units or sections, commonly termed pancake units or sections, and formed by winding the covered wire soaked and coated with molten paraffin or the like upon a spool or bobbin. And the present improvement has for its object to provide a simple and efficient structural formation and combination of parts whereby the double or twin type of coil units or sections having a very compact nature is produced in a rapid and economical manner, and in which the difficulty of joining individual windings at the innermost points is avoided, all as will hereinafter more fully appear.

The accompanying drawings is an enlarged axial section of a spark coil section or unit constructed in accordance with the present invention.

Referring to the drawing, 1 and 2 are centrally orificed outer spool heads, and 3 the similarly orificed intermediate spool head of the present double or twin coil section or unit; such spool heads are formed of paper board, wood pulp or like non-conducting material, thoroughly saturated with paraffin or the like, and are held in proper parallel and separated relation by means of annular necks 4, at the margins of the central orifices of the outer spool heads 1 and 2. The aforesaid necks 4, are integrally formed on said heads, and extend towards each other to form, in the main, the wall of the orifice or central chamber in which the primary winding and its core is arranged in an assemblage of the parts constituting an induction coil. The intermediate spool head 3, is of a plain disk shape and in the preferred form of the present invention said disk is arranged between the ends of the aforesaid necks 4 and with its opposite surfaces forming an abutment therefor as shown.

5, is a small hole or passage through the intermediate spool head 3, in adjacent relation to the central orifice thereof; such hole or passage is adapted to receive the forward end of the wire from which the coil winding is formed, as hereinafter more fully set forth.

The spool parts, assembled as above described, provide a pair or counterpart or twin annular cavities in adjacent relation and adapted to receive the individual coil windings 6 and 7, which constitute a twin or double coil section or unit of the present construction. The individual windings above set forth are wound in reverse directions and preferably by the coil winding apparatus which constitutes the subject matter of a companion application for Letters Patent Serial Number 349,726 filed December 27, 1906. Said windings are connected at their innermost points by an extension of the wire of one winding through the small hole or passage 5 of the intermediate spool head 3, to form a part of the other winding; as so arranged the present double coil section or unit will have no inner ends requiring connection with the similar end of an adjacent section or unit; the entire connection with such adjacent coil section being made by external ends 8 and 9 of the windings 6 and 7 of such particular section or unit with similar members of the adjacent sections or units.

As set forth in detail in my aforesaid companion application, the coil windings are formed by covered wires saturated with paraffin, so that a strong and substantial connection is had not only between the different layers of wire, but also between the saturated spool parts, with the result that a very durable and strong coil section or unit is produced.

Having thus fully described my said invention what I claim as new and desire to secure by Letters Patent is:—

1. A coil section or unit comprising a pair of outer spool heads formed with central orifices and annular necks which project towards each other, an intermediate head formed with a corresponding orifice and with a small passage adjacent to said orifices, said intermediate spool head being arranged intermediate of the outer spool heads, and reversed coil windings in the annular cavities between the heads aforesaid and connected together by a wire extension passing through the small passage aforesaid, substantially as set forth.

2. A coil section or unit, comprising a pair of outer spool heads formed with central orifices and annular necks which project towards each other, and intermediate head formed with a corresponding orifice and with a small passage adjacent to said orifices, said intermediate spool head being arranged between the annular necks of the outer spool heads, and reversed coil windings in the annular cavities between said heads and connected together by a wire extension passing through the small passage aforesaid, substantially as set forth.

Signed at Chicago, Illinois, this 21st day of December 1906.

CARL A. PFANSTIEHL.

Witnesses:
ROBERT BURNS,
HENRY MOE.