

No. 752,008.

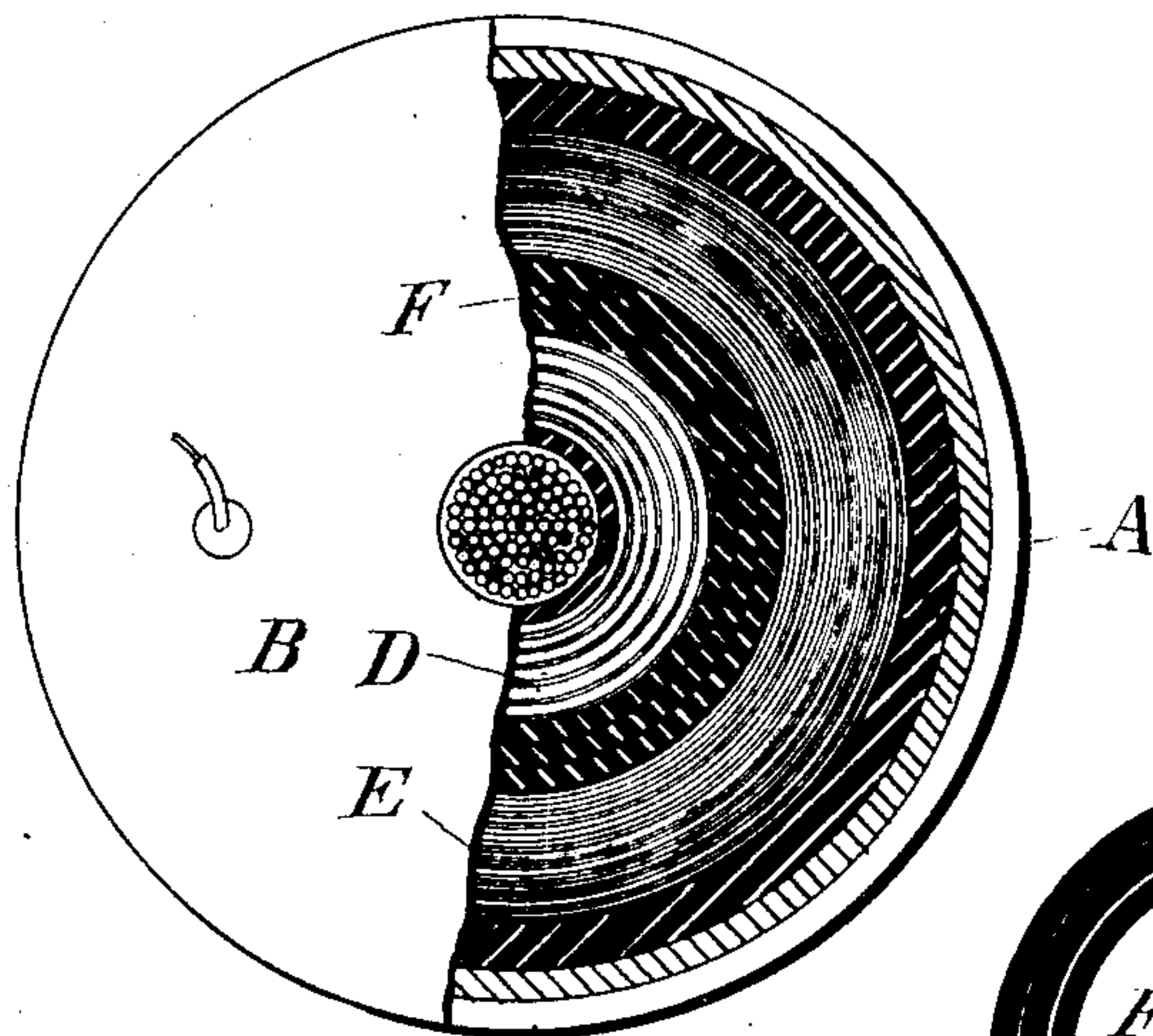
PATENTED FEB. 9, 1904.

C. F. SPLITDORF.  
INDUCTION COIL.

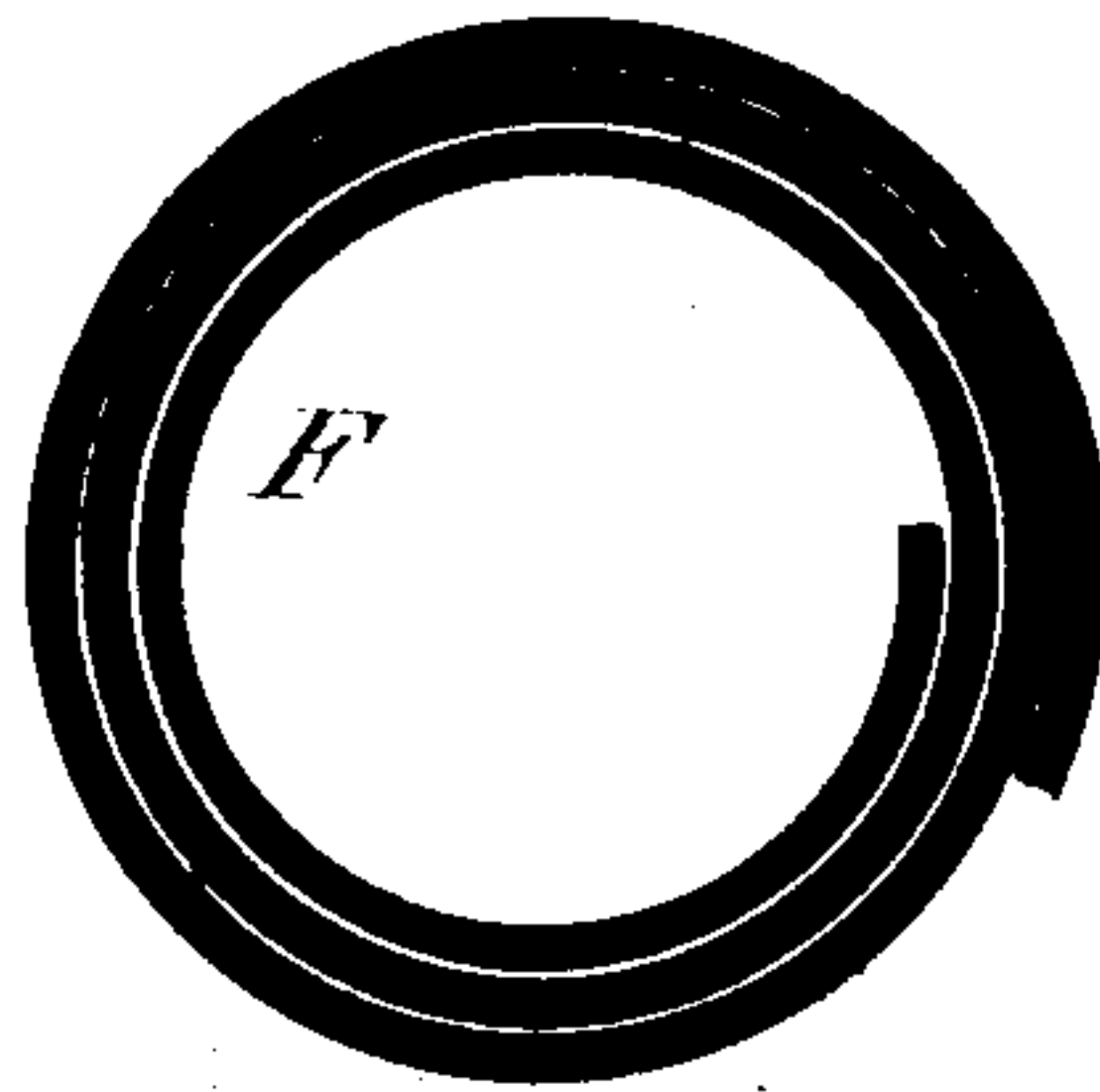
APPLICATION FILED JULY 15, 1902.

NO MODEL.

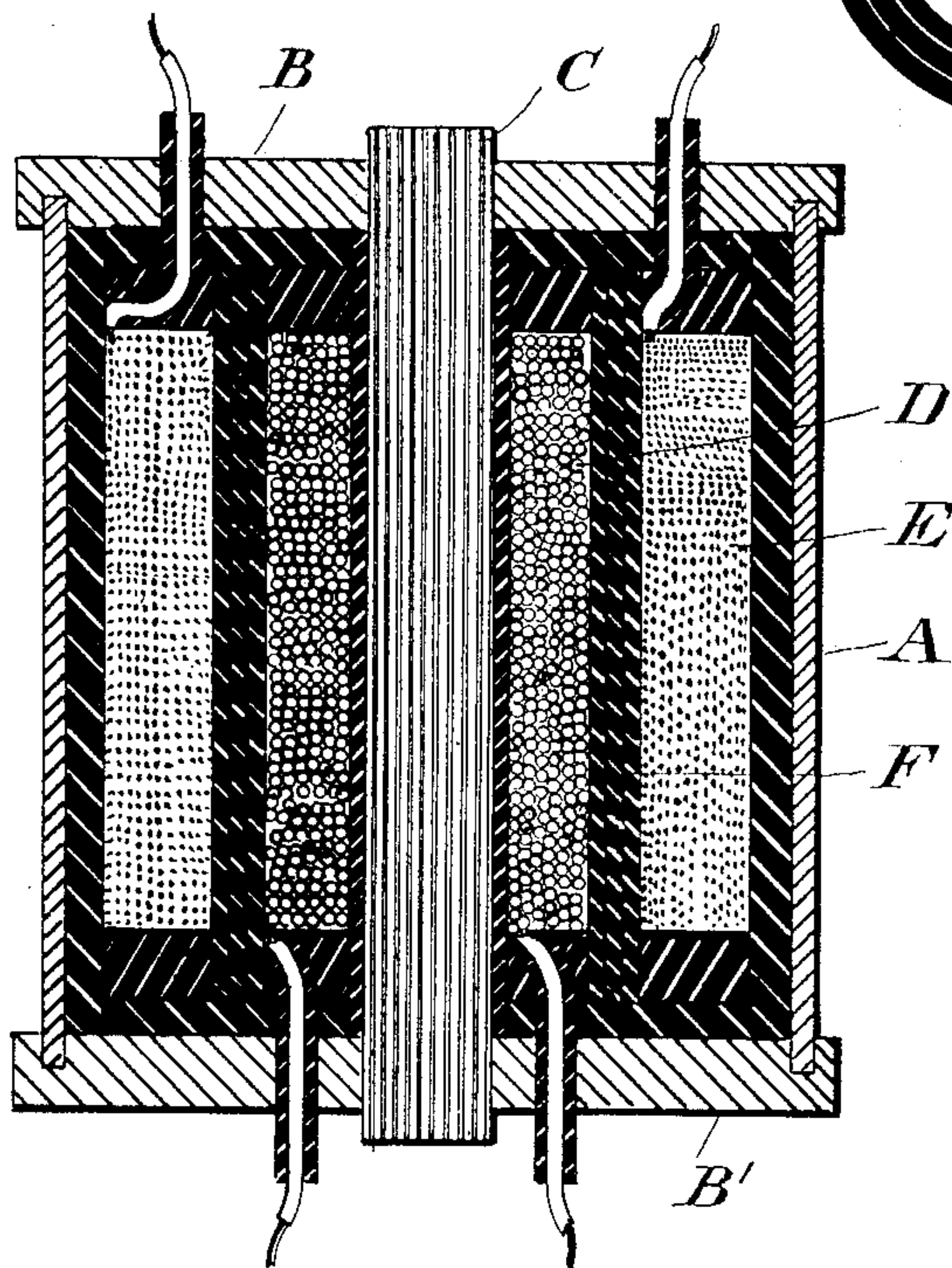
*Fig. 2.*



*Fig. 3.*



*Fig. 1.*



WITNESSES:

*Nathan B. Chadsey*  
*E. B. Barker.*

INVENTOR

*Charles F. Splitdorf.*

BY

*F. W. Barker*

ATTORNEY



# UNITED STATES PATENT OFFICE.

CHARLES F. SPLITDORF, OF NEW YORK, N. Y.

## INDUCTION-COIL.

SPECIFICATION forming part of Letters Patent No. 752,008, dated February 9, 1904.

Application filed July 15, 1902. Serial No. 115,724. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES F. SPLITDORF, a citizen of the United States, residing in the borough of Manhattan, in the city, county, and State of New York, have invented a new and useful Induction-Coil, of which the following is a specification.

My invention relates to means for insulating the primary and secondary wire-windings of electric coils from one another; and it comprises the employment of an intermediary sheet of non-conducting material, of either hard or soft rubber, or other material in sheet form capable of serving as an efficient non-conductor. I, however, prefer to use a thin sheet of hard rubber as my insulating medium, and because such or any equivalent material in its preparation or handling is liable to possess or to develop weak spots, such as cracks or splits, affording an opportunity for leakage and short-circuiting between the windings, I employ such sheet of hard rubber or other non-conducting material which has been previously produced in the form of a resilient roll or convolution having a plurality of thicknesses or plies, whereby a weakness in one thickness or ply will be corrected and obviated through the integrity at the corresponding point of the succeeding or adjacent thickness or thicknesses or ply or plies of material.

In the drawings accompanying this application, Figure 1 is a side sectional view of a coil having my improved insulation. Fig. 2 is an end view, partly in cross-section; and Fig. 3 is an end view of the form of insulation employed.

In said figures, A B B' indicate the coil-casing; C, the core; D, the primary winding, and E the secondary winding.

F indicates my improved insulation, which, as seen, consists of a sheet of material, as hard rubber, of a length equal to several times the circumference of the body it is designed to encircle, as the primary winding D. The sheet F is wrapped tightly about the primary

winding D by distending the convolution and placing the primary therein, the length of said sheet permitting it to contract about and encircle the primary with a plurality of plies or thicknesses, and the secondary winding-wire E is wound tightly directly upon the outer surface of the insulation-roll thus formed. The main feature of this improved insulation lies in its quality of minimizing the danger of leakage of current through the multiplicity of thicknesses or plies of material, while a further advantage lies in its convenient roll form, produced from a single sheet of insulating material, and the facility with which the same can be applied in the process of manufacturing the coil.

While I have described the application of my improved insulation intermediate the wire-windings, I am aware that the same form of insulation may be employed between the core and primary winding of a coil, such application being equally within the scope and spirit of my invention, although on account of the low voltage in these elements the same necessity for such thorough insulation does not exist as in insulating the primary and secondary windings.

Having now described my invention, I declare that what I claim is—

1. In an induction-coil, an insulating medium intermediate the active elements thereof, comprising a sheet of non-conducting resilient material produced in convolute form, and adapted to contract about and inclose the inner element.

2. In an induction-coil, an insulating medium intermediate the primary and secondary windings thereof, comprising a sheet of non-conducting resilient material rolled upon itself in form of a multi-ply cylinder, and adapted to contract about and inclose the primary winding.

3. In an induction-coil, in combination, a core, an insulated wire wound thereupon, a sheet of non-conducting resilient material produced in roll form and adapted to contract

about and inclose said wire, and another wire wound directly upon said roll of non-conducting material.

4. In an induction-coil, a convolute roll of  
5 hard rubber contracted about the primary winding and forming an insulating seat for the secondary winding.

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

C. F. SPLITDORF.

Witnesses:

F. W. BARKER,  
NATHAN B. CHADSEY, Jr.