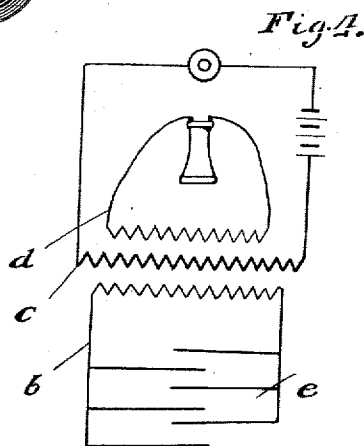
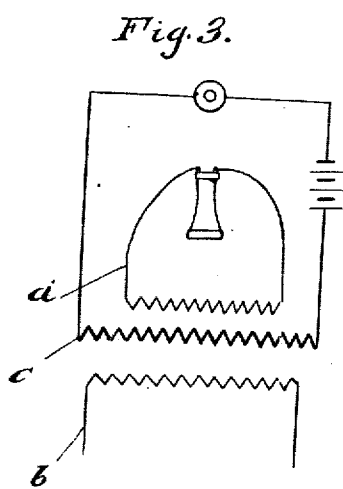
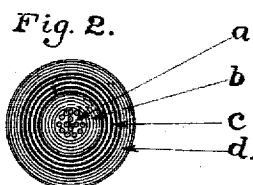
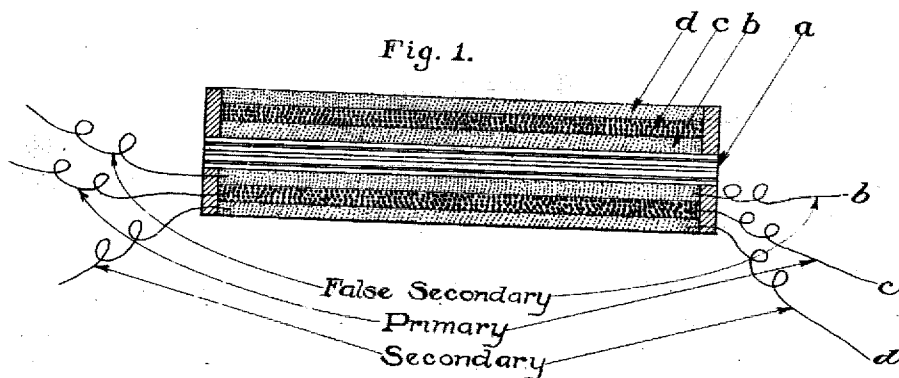


No. 823,973.

PATENTED JUNE 19, 1906.

S. H. SAUVÉ.
INDUCTION COIL.
APPLICATION FILED MAY 23, 1905.



Stauslaus Henry Sauvé

Witnesses
Goldie I. Davison
for him

Inventor
By his Attorney *[Signature]*

UNITED STATES PATENT OFFICE.

STANISLAUS HENRY SAUVÉ, OF SPOKANE, WASHINGTON, ASSIGNOR OF FORTY-NINE ONE-HUNDREDTHS TO JACOB H. ROBBINS, OF SPOKANE, WASHINGTON.

INDUCTION-COIL.

No. 823,973.

Specification of Letters Patent.

Patented June 19, 1906.

Application filed May 23, 1906. Serial No. 261,836.

To all whom it may concern:

Be it known that I, STANISLAUS HENRY SAUVÉ, of Spokane, in the county of Spokane and State of Washington, have invented certain new and useful Improvements in Induction-Coils; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention has for its object the production of a greater degree of inductive efficiency than is produced by any induction-coils or inductive agency known to me.

A further object is to provide a transmitting power by means of this improved induction-coil which may be varied and adapted in connection with the telephone to the distance to be communicated with without changing the induction-coil or battery power.

My improvement contemplates the employment, in addition to an ordinary induction-coil, of a tertiary or auxiliary wire, which for descriptive purposes I designate a "false secondary wire." This is wound in the same manner as the other wires and may be placed with good results in any of the three places—that is to say, in the first coil or winding next to the core, in the middle or second coil or winding, or in the third or outer coil or winding. In other words, the false secondary or tertiary wire is an independent wire, no matter which of these three positions it occupies. The best proportion between these wires is dependent upon the work to be done, and I fix no particular form of induction-coil or transformer to which my idea of a third wire may be applicable, as my invention may be used with good results in any combination in which induced currents are applied or applicable.

The invention will be hereinafter fully set forth, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 represents a longitudinal sectional view of the common or ordinary style of induction-coil embodying my invention. Fig. 2 is a transverse sectional view. Fig. 3 is a diagrammatic view illustrating my invention. Fig. 4 is a similar view showing the same employed in connection with a condenser.

Referring to the drawings, *a* designates the usual soft-iron or annealed wire core; *b*, the

third or false secondary wire; *c*, the primary wire, and *d* the usual secondary wire. I have shown the false secondary or tertiary wire as wound around the core *a*, the primary wire *c* as coiled around the false secondary, while the outer winding is composed of the usual secondary coil.

I do not restrict myself to any particular kind, length, or size of wire or coil. In practice I connect the primary wire with the battery-circuit and the secondary wire with the line-wires, leaving the two ends of the false secondary free and detached; but by connecting the ends of this false secondary wire with a condenser *e*, Fig. 4, a still greater efficiency is obtained. This is also true if the wire be connected up with another coil. Indeed, the adaptations of the invention are numerous.

I am aware that use has been made of a third wire of iron added to or connected with either the core, line-wire, battery, or battery-wire or other device or mechanism whereby entirely different results have been obtained from that which is produced by my invention. The essential and chief feature of my improvement is in the third or false secondary wire, when the coil or the remaining two wires, primary and secondary, are in use, and in the interchangeable use of the three wires of the coil, the false secondary wire always being independent without reference to the position it occupies, and through this interchangeability I secure different degrees of electromotive force or electrovibratory force, according to the use desired. This variable use may be accomplished through any known device for switching.

I do not restrict my invention to any particular form or manner of construction or use. The third or false secondary wire may be wound directly upon the core, may be placed between the usual primary and secondary wires, wound exchangeably first with one and then with the other, or may be placed or wound in any course of a coil or in any other manner wherein or whereby wires are arranged within inductive distances of each other, in any of which cases the use of this third or false secondary wire in connection therewith will greatly improve its induction or electro motive or vibratory force. Any of the well-known methods for insulating wires may be used for protecting the wires or coils

one from the other, and necessarily they should be so insulated.

In connection with telephones this invention is of very great practical utility and a great improvement on the present induction-coils, both as to efficiency in transmitting power as applied to distances reached in the transmission of sound or conversation and also in the distinctness and adjustability or adaptability of the improved induction-coil to the particular telephonic use to be made of it.

I claim as my invention—

1. In an induction-coil a disconnected wiring forming part thereof for increasing the undulating current and the electromotive force.

2. An induction-coil having a false secondary or tertiary wire disconnected from the other wires of the coil.

3. An induction-coil having, in combination with the primary winding, two separate

and distinct secondary windings, one of which is disconnected.

4. An improved induction-coil comprising a plurality of wirings, an independent wiring and means coacting with the latter for increasing the inductivity of the coil.

5. An induction-coil having a false secondary wire, the extreme ends of which are disconnected.

6. An induction-coil having three separate and distinct wires or coils capable of being used interchangeably, one of the wires having its extreme ends disconnected when of the remaining wires one is connected with the line-wire and the other with the battery.

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

STANISLAUS HENRY SAUVÉ.

Witnesses:

VERNON E. WEST,

FRANCIS S. MAGUIRE.