

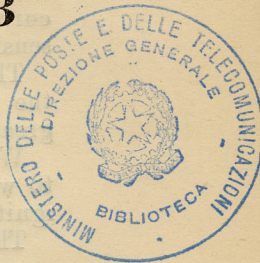
N° 15,199



A.D. 1903

Date of Application, 9th July, 1903

Complete Specification Left, 25th Apr., 1904—Accepted, 7th July, 1904



PROVISIONAL SPECIFICATION.

“Improvements in Induction Coils for the Ignition Apparatus for Motors.”

We, MARCONI'S WIRELESS TELEGRAPH COMPANY, LIMITED, Electricians, SIDNEY WALTER ASHLEY, Electrician, and KARL ALFRED HINDE, Electrician, all of 18 Finch Lane, in the City of London, do hereby declare the nature of this invention to be as follows:—

- 5 According to this invention an additional coil of low resistance is provided in series with the ignition coil primary, and a suitable switch or connection whereby it can be used as a shunt across the engine contacts, thus permitting just sufficient current to pass (when the engine contact is open) to bring the coil into a very sensitive condition.
- 10 The resistance also acts as a shunt to the engine contacts, whereby it reduces the sparking at these contacts, and increases their life, as well as insuring greater certainty of working.
- When the switch bringing the resistance into play is closed, the induction coil to which it is attached is capable of working at a much greater speed, the
- 15 ignition lag being eliminated at the higher speeds.

Dated this 9th day of July 1903.

MARCONI'S WIRELESS TELEGRAPH COMPANY,
LIMITED.

S. FLOOD PAGE,
HENRY S. SAUNDERS,
Directors.
HENRY W. ALLEN,
Secretary.

S. W. ASHLEY,
KARL A. HINDE.

COMPLETE SPECIFICATION.

“Improvements in Induction Coils for the Ignition Apparatus for Motors.”

- We, MARCONI'S WIRELESS TELEGRAPH COMPANY, LIMITED, Electricians, SIDNEY
- 30 WALTER ASHLEY, Electrician, and KARL ALFRED HINDE, Electrician, all of 18 Finch Lane, in the City of London, do hereby declare the nature of this invention and in what manner the same is to be performed to be particularly described and ascertained in and by the following statement:—

According to this invention an additional coil of low resistance is provided in

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Improvements in Induction Coils for the Ignition Apparatus for Motors.

series with the ignition coil primary, and a suitable switch or connection whereby it can be used as a shunt across the engine contacts, thus permitting just sufficient current to pass (when the engine contact is open) to bring the coil into a very sensitive condition.

The resistance also acts as a shunt to the engine contacts, whereby it reduces the sparking at these contacts, and increases their life, as well as insuring greater certainty of working.

When the switch bringing the resistance into play is closed, the induction coil to which it is attached is capable of working at a much greater speed, the ignition lag being eliminated at the higher speeds.

The diagram illustrates the arrangement.

a is the battery or other source of current, b is the primary of the induction coil, b^1 is the secondary and b^2 the spark gap. c is a contact maker in the circuit and d is a condenser in parallel with it. No change is made in these parts which are arranged in any usual manner. e is the resistance forming the subject of the present invention and f is the switch closing the primary circuit through it. The resistance e should be such that (when the circuit is broken at c and the switch f is closed) it will pass as much current as possible without involving risk of sparking at b^2 so that when the circuit is closed at c sparking takes place instantaneously.

The above described apparatus is equally applicable to any induction coil used for producing sparks such for example those employed in transmitters for wireless telegraphy.

Having now particularly described and ascertained the nature of our said invention and in what manner the same is to be performed, we declare that what we claim is:—

1. The combination with an induction coil of a resistance in series with the primary and forming a shunt across the contact maker substantially as described.
2. Induction coils substantially as described and illustrated in the diagram.

Dated this 22nd day of April 1904.

MARCONI'S WIRELESS TELEGRAPH COMPANY,
LIMITED.

S. FLOOD PAGE,
H. CUTHBERT HALL,
Directors.
HENRY W. ALLEN,
Secretary.

SIDNEY WALTER ASHLEY,
KARL ALFRED HINDE.

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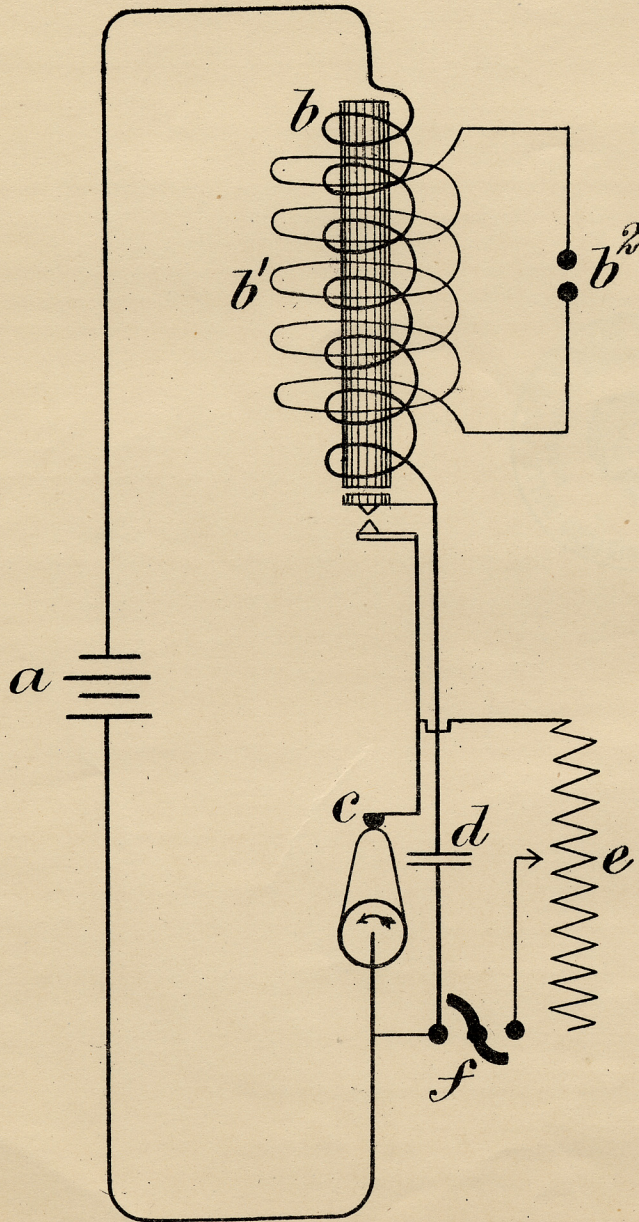
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MARCONI'S WIRELESS TELEGRAPH CO. [LTD.] COMPLETE SPECIFICATION.

(2nd Edition)



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