

N^o 11,486



A.D. 1912

Date of Application, 14th May, 1912

Complete Specification Left, 14th Nov., 1912—Accepted, 14th May, 1913

PROVISIONAL SPECIFICATION.

Improved Method of and Means for Closing Electric Circuits.

We, GILBERT CECIL PILLINGER and LEO SUNDERLAND, Electrical Engineers, of 47, Victoria Street, Westminster, London, S.W., do hereby declare the nature of this invention to be as follows:—

5 Our invention relates to an improved method of and means for closing electric circuits and its object is to produce an apparatus which will close an electric circuit when the voltage and amperes are such that two moving pointers or needles of the instrument come in contact with one another, or to open such a circuit when the pointers separate as the case may be.

10 For this purpose we employ an ampere meter and voltmeter so arranged and constructed that the pointer or needle of the ampere meter will not pass that of the voltmeter without making contact therewith. The needles or pointers move over a dial plate or plates, which latter may be in sector, circular, or other form on which the voltage and amperes are suitably inscribed. The needles or pointers are so arranged that current is passed from one to the other
15 at the point at which they come in contact thereby completing an electric circuit which may be used for operating a relay, solenoid or other electrical apparatus.

Dated the 14th day of May, 1912.

20 KINGS PATENT AGENCY LIMITED,
165, Queen Victoria Street, London, E.C.,
Agents for Applicants.

The common seal of Kings Patent Agency Limited was affixed hereto in presence of:—

25 BENJ. T. KING,
Director,
Chartered Patent Agent.

COMPLETE SPECIFICATION.

Improved Method of and Means for Closing Electric Circuits.

30 We, GILBERT CECIL PILLINGER and LEO SUNDERLAND, Electrical Engineers, of 47, Victoria Street, Westminster, London, S.W., 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:—

35 Our invention relates to an improved method of and means for closing electric circuits, and its object is to produce an apparatus which will close an electric circuit when the voltage and amperes recorded by suitable volt and ammeters

[Price 8d.]



Improved Method of and Means for Closing Electric Circuits.

are such that the pointers or indices of said instruments are in contact with each other, and open said circuit when they separate.

In the following description of our invention reference may be had to the drawing in which is shown diagrammatically by way of illustration a combined voltmeter and ampere meter constructed and arranged according to our invention. 5

According to our invention, we employ a combined voltmeter and ampere meter A and B respectively, with pointers or indices *a*, *b*. The upper pointer *a* (*i.e.* that of the voltmeter A) is shod at the lower extension point with a contact piece *c* so that contact between the extremity *c* of the pointer *a* 10 and the pointer *b* of the ampere meter B may be lightly but effectively established and the circuit *e*, *e'* closed, said circuit comprising a battery or the like C and a relay, solenoid, magnet or other electrical apparatus D.

Our invention is particularly useful in conjunction with our prior Patent No. 29,944 of 1909 and as an alternative to the Patent therein referred to, 15 No. 13,185 of 1908.

We are aware that prior to our invention, systems of differential relays have been used for closing or opening a auxiliary circuit, the comparative values of pressure and quantity of a circuit being indicated by indices and dials, but in our present invention we do not use a relay of differential or especial type, 20 but the essential feature thereof is the superposition of a volt meter and ampere metre, an extension of the index of one establishing an electric contact with the index of the other, thus actuating the ordinary simple relay. We are also aware that two indices of voltmeters with concentric axes have been used for making contact, but in an entirely different manner from that herein described. 25

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 method of and means for closing electric circuits by establishing contact and breaking same between the pointers or indices of a combined volt 30 meter and ampere meter as herein described with reference to the drawings.

2. In closing an auxiliary electric circuit, the superimposed arrangement of a volt meter and an ampere meter so that an extension of one index beyond the axis thereof may at a predetermined position establish electric contact with the index below it substantially as and for the purpose described. 35

Dated the 14th day of November, 1912.

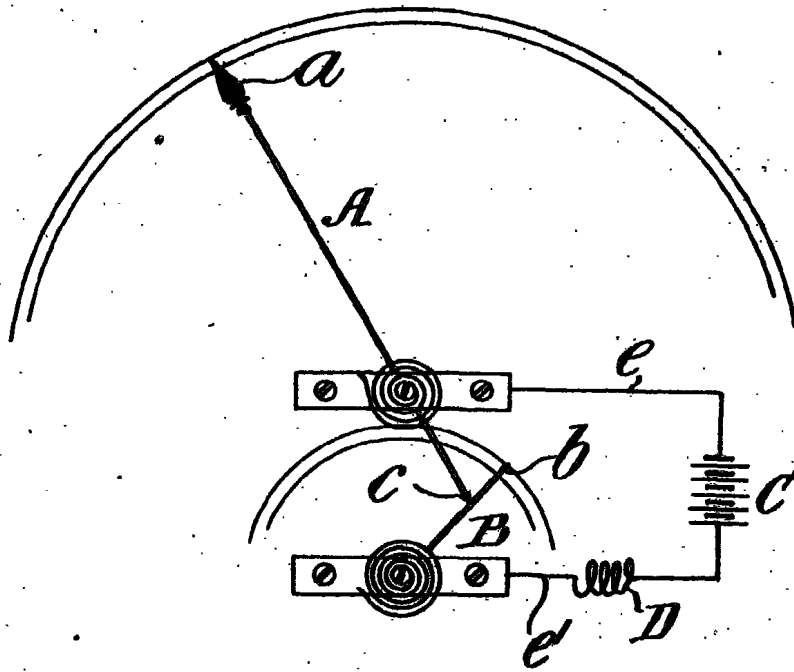
KINGS PATENT AGENCY LIMITED,
 BENJ. T. KING,
 Director,
 Chartered Patent Agent, 40
 165, Queen Victoria Street, London, E.C.,
 Agents for Applicants.

A.D. 1912. MAY 14. N: 11,486.

PILLINGER & another's COMPLETE SPECIFICATION.

(1 SHEET)

[This Drawing is a full-size reproduction of the Original.]



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