[Second Edition.]

# N° 11,359 A.D. 1910

*Date of Application, 7th May, 1910*

*Complete Specification Left, 7th Nov., 1910—Accepted, 16th Feb., 1911*

## PROVISIONAL SPECIFICATION.

## Improvements in Portable Apparatus for Wireless Telegraphy.

We, Marconi's Wireless Telegraph Company, Limited, Raymond Dorrington Bangay, and Charles Edmond Prince, all of Watergate House, York Buildings, Adelphi, London, Electrical Engineers, do hereby declare the nature of this invention to be as follows:—

This invention relates to improvements in portable apparatus for wireless telegraphy whereby the apparatus is arranged so that it may be divided up and mounted in boxes suitable for transport and so that the connections required between the boxes when working are as few as possible thus simplifying and accelerating the packing and unpacking and enabling the boxes to be made waterproof so that they can be used in all weathers without further protection.

As is well known, the transmitting apparatus for wireless telegraphy ordinarily consists of a low frequency circuit connected to a high frequency circuit which is magnetically coupled to the aerial circuit while the receiving apparatus is connected either permanently or during reception to the aerial circuit. According to this invention, we make the principal division at the magnetic coupling and provide one box for the low and high frequency apparatus and a second box for the aerial circuit and receiving apparatus, thus obviating the necessity of connections between these boxes, and at the same time providing a simple means of varying the coupling between the high frequency transmitting circuit and the aerial circuit by varying the relative positions of the boxes.

For the purpose of varying this coupling we arrange a portion of each of these circuits so that they come close together when one box is placed upon the other and the coupling can therefore be varied by simply sliding one box over the other.

It is evident that in some cases it may be necessary to further subdivide the apparatus and mount it in smaller boxes requiring connections, and it may also be convenient to place the operating key of the low frequency transmitting circuit with the receiving apparatus thus necessitating a connection across the principal division. In all such cases we make the divisions through circuits carrying low frequency and low potential currents as the connections can then be made by ordinary plugs and sockets, and the waterproof construction of the boxes can be maintained.

Since it is necessary to open one of the boxes when working, we preferably construct it with doors opening so that one forms a small table and the other a protecting roof and we provide canvas sides between the table and roof so that the apparatus may be worked in all weathers without any tent or other additional protection.

Dated this 6th day of May, 1910.

MARCONI'S WIRELESS TELEGRAPH CO., LTD.,
H. Riall Sankey,
Henry S. Saunders,
Directors.
Henry W. Allen,
Secretary.

R. D. BANGAY.
CHARLES E. PRINCE.

[Price 8d.]

*Improvements in Portable Apparatus for Wireless Telegraphy.*

## COMPLETE SPECIFICATION.

### Improvements in Portable Apparatus for Wireless Telegraphy.

We, MARCONI'S WIRELESS TELEGRAPH COMPANY, LIMITED, RAYMOND DORRINGTON BANGAY, and CHARLES EDMOND PRINCE, all of Watergate House, York Buildings, Adelphi, London, Electrical Engineers, 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:—

This invention relates to improvements in portable apparatus for wireless telegraphy whereby the apparatus is arranged so that it may be divided up and mounted in boxes suitable for transport and so that the connections required between the boxes when working are as few as possible thus simplifying and accelerating the packing and unpacking and enabling the boxes to be made waterproof so that they can be used in all weathers without further protection.

The accompanying drawings show apparatus made in accordance with our invention.

As is well known, the transmitting apparatus for wireless telegraphy ordinarily consists of a low frequency circuit connected to a high frequency circuit which is magnetically coupled to the aerial circuit while the receiving apparatus is connected either permanently or during reception to the aerial circuit. According to this invention, we make the principal division at the magnetic coupling and provide one box *a* for the low and high frequency apparatus and a second box *b* for the aerial circuit and receiving apparatus, thus obviating the necessity of connections between these boxes, and at the same time providing a simple means of varying the coupling between the high frequency transmitting circuit *c* and the aerial circuit *d* by varying the relative positions of the boxes.

For the purpose of varying this coupling we arrange a portion of each of these circuits so that they come close together when one box is placed upon the other and the coupling can therefore be varied by simply sliding one box over the other, as shown in Figure 1.

It is evident that in some cases it may be necessary to further subdivide the apparatus and mount it in smaller boxes requiring connections, and it may also be convenient to place the operating key *e* of the low frequency transmitting circuit with the receiving apparatus *f* thus necessitating a connection across the principal division. In all such cases we make the divisions through circuits carrying low frequency and low potential currents as the connections can then be made by ordinary plugs and sockets such as *g* and the waterproof construction of the boxes can be maintained.

Since it is necessary to open one of the boxes when working, we preferably construct it with doors *h i* opening so that one *h* forms a small table as seen in Figure 2 and the other *i* a protecting roof and we provide canvas sides *k* between the table and roof so that the apparatus may be worked in all weathers without any tent or other additional protection.

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:—

Portable apparatus for wireless telegraphy substantially as described with reference to the drawings.

Dated this 7th day of November, 1910.

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*Fig.1.*

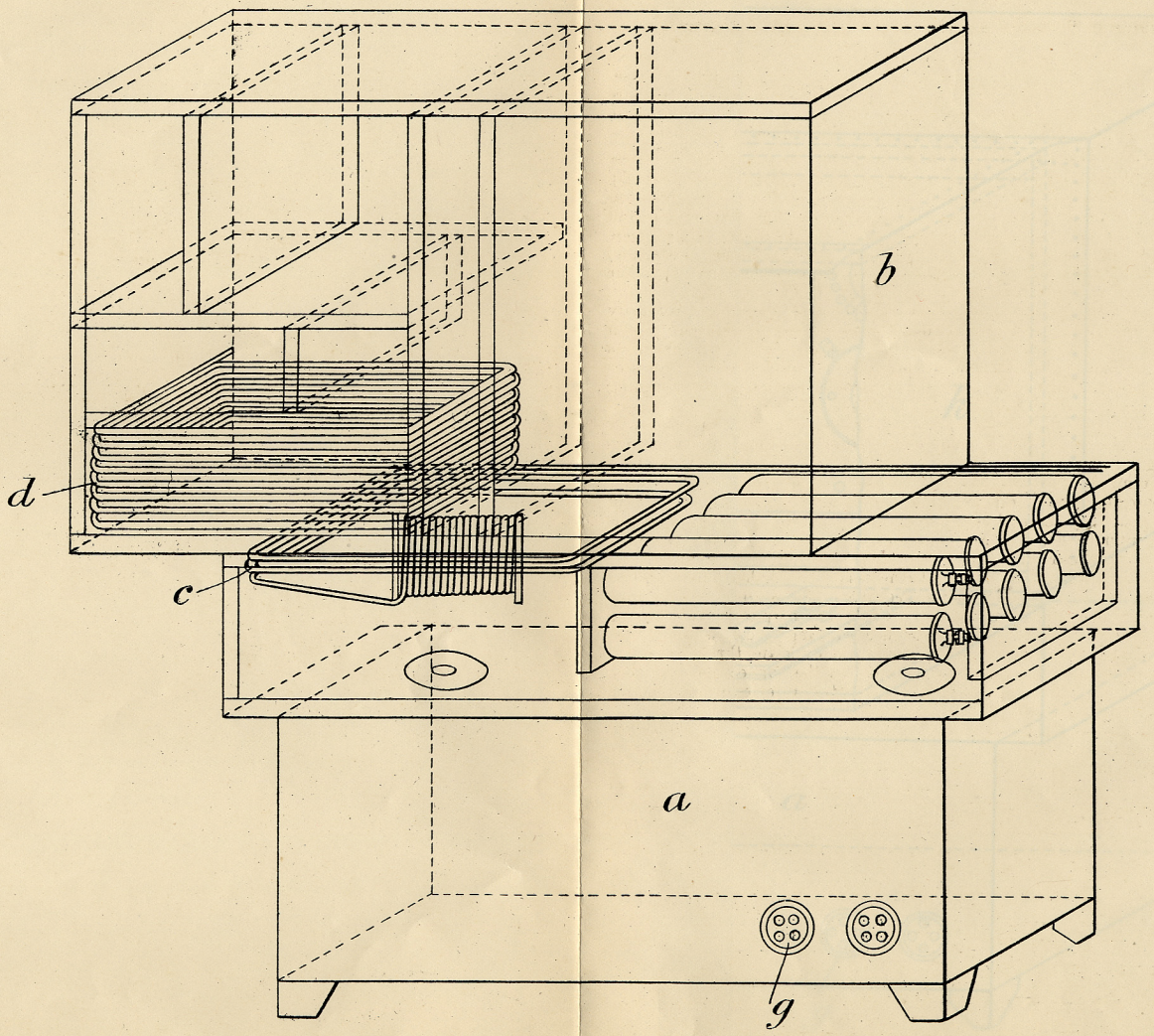




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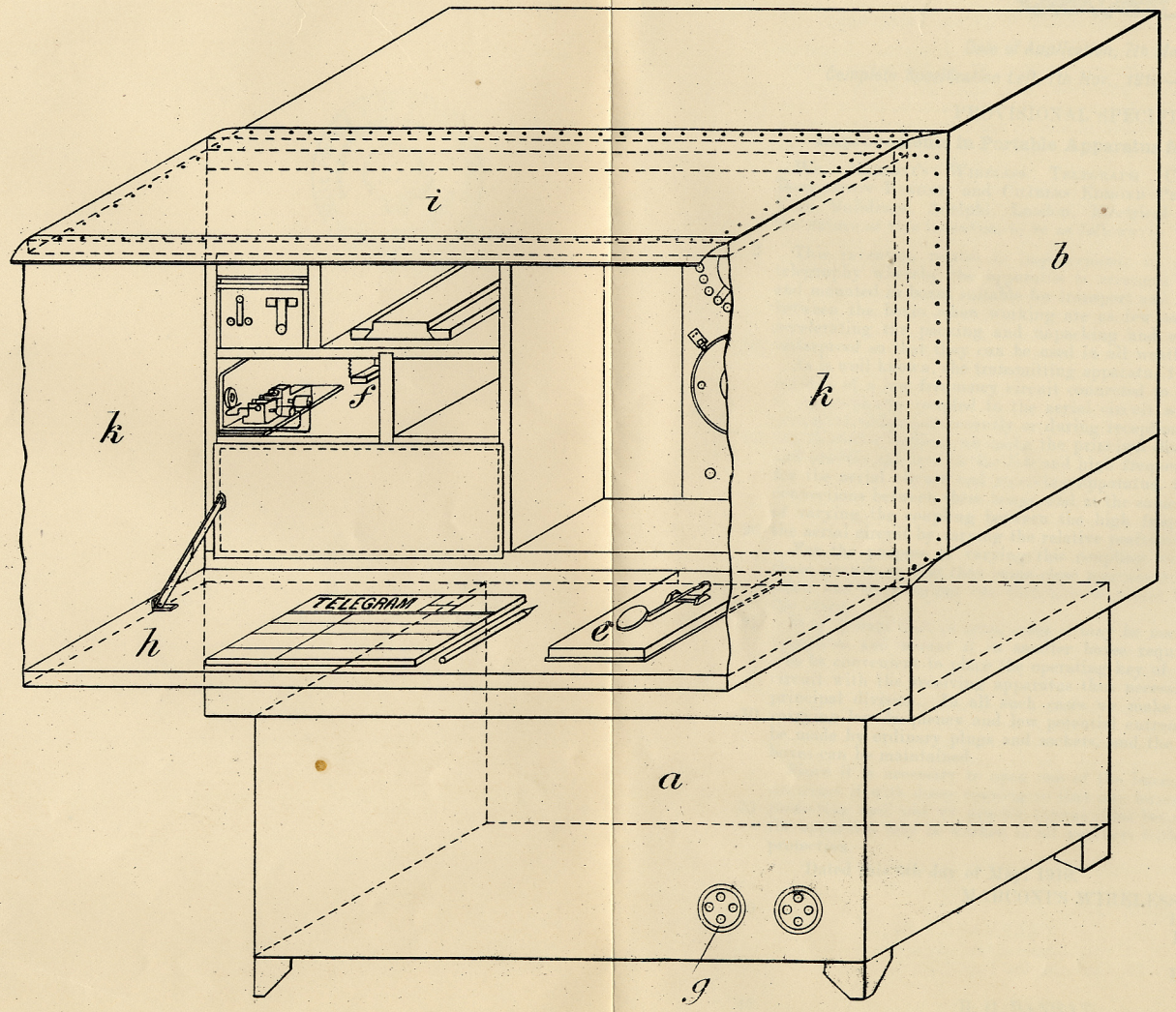
*Fig. 2.*



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