

No. 890,781.

PATENTED JUNE 16, 1908.

L. MAICHE.
ELECTRIC TRANSFORMER.
APPLICATION FILED SEPT. 23, 1907.

Fig. 1.

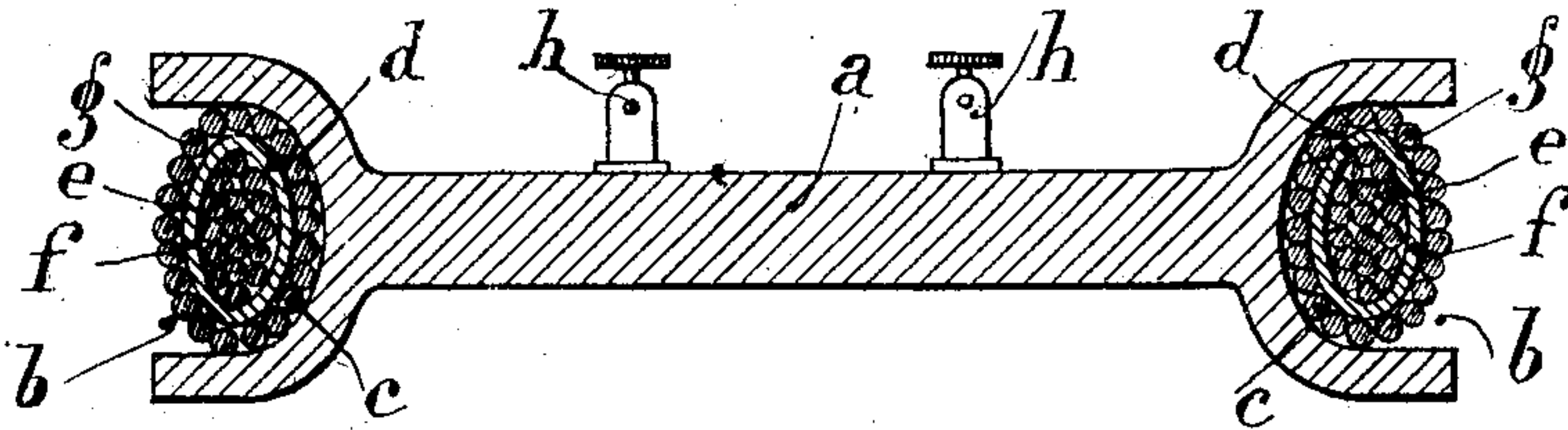
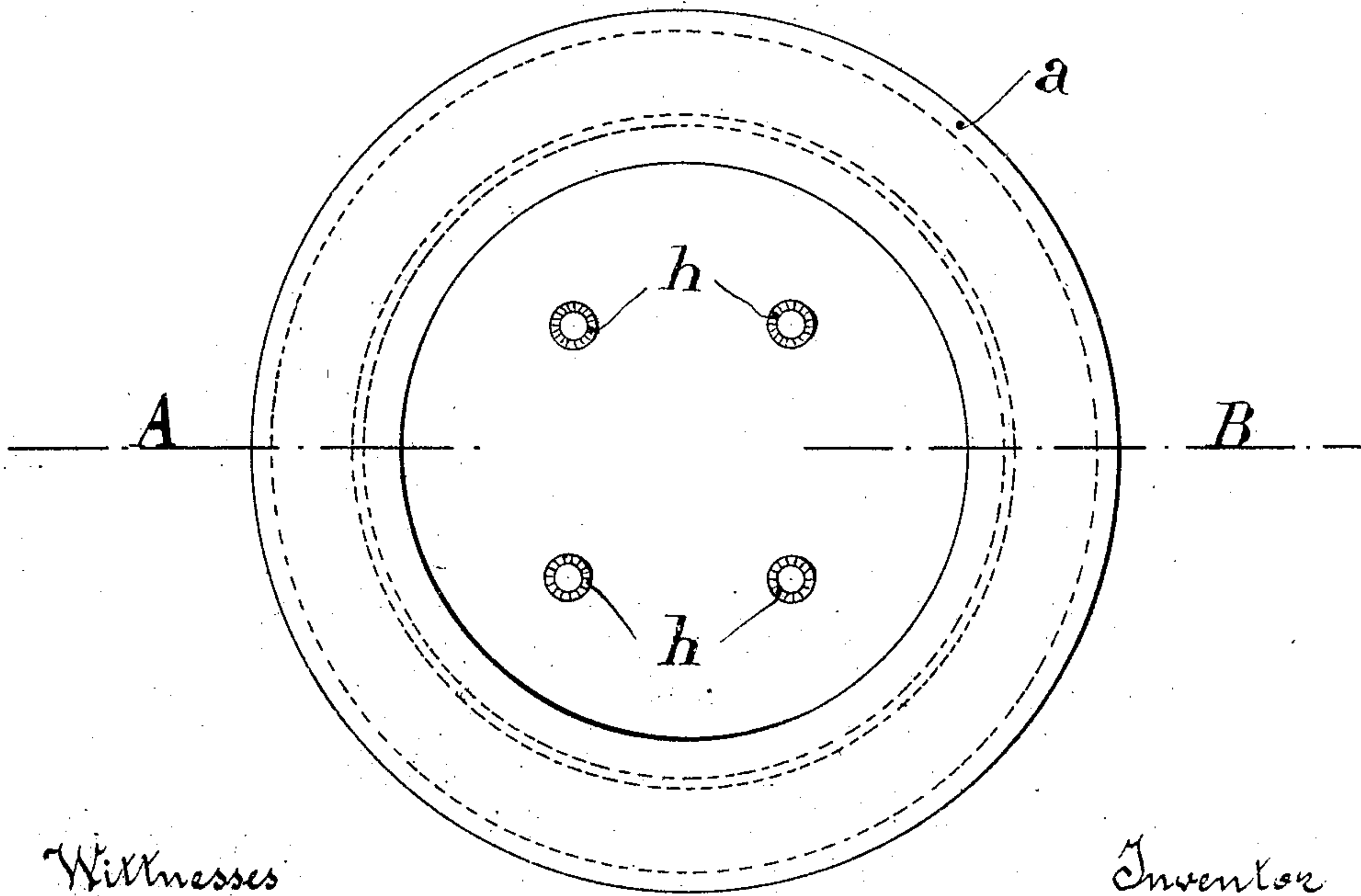


Fig. 2.



Witnesses

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UNITED STATES PATENT OFFICE.

LOUIS MAICHE, OF PARIS, FRANCE.

ELECTRIC TRANSFORMER.

No. 890,781.

Specification of Letters Patent.

Patented June 16, 1908.

Application filed September 23, 1907. Serial No. 394,213.

To all whom it may concern:

Be it known that I, LOUIS MAICHE, a citizen of the French Republic, residing at Paris, France, have invented certain new and useful Improvements in Electric Transformers, of which the following is a specification.

This invention relates to electric transformers the construction of which is improved so that currents of induction of very short periodicity are obtained. The currents, the duration of which is extremely short, possess special properties which are particularly useful when applied in telegraphy and in wireless telephony.

The electric transformer as per the present invention is characterized by the absence of a magnetic core and by the arrangement that the primary and secondary windings form a coil of little length but of very large diameter, the primary winding being, so to say, drowned in the secondary winding.

In the accompanying drawing an electric transformer according to the present invention is shown diagrammatically and by way of example.

Figure 1 is a section on line A—B of Fig. 2 and Fig. 2 is a ground plan of the transformer.

As can be seen from the drawings, the transformer *a* is of very large diameter which could be up to several meters; in the drawing the transformer is represented of circular cross section; it could however be of square cross section or of any other suitable polyg-

onal shape. This transformer is very short 35 because all the wires of the winding are located on its periphery in an appropriate hollow or groove *b*. One begins to place around the felly of this kind of wheel or disk a first layer of secondary wire *c* which is covered by 40 a suitable insulator *d* and upon this insulator the primary wire *e* is wound which is covered by another layer of insulating material *f*. The two insulating layers *d* and *f* are connected in such a manner that the primary 45 wires *e* are well insulated and the coil is finished by an outer winding of secondary wire *g*. In this manner a ring of large diameter is obtained which is composed of the secondary wires *c, g* which inclose a core of 50 suitably insulated primary wires *e*.

The apparatus comprises four terminals *h*, two of which serve for fixing the ends of the secondary winding, the other two serving for fixing the ends of the primary winding. 55

What I claim as my invention is:—

An electric transformer without magnetic core, of little length but of large diameter, having the primary winding inclosed in the secondary winding. 60

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

LOUIS MAICHE.

Witnesses:

DEAN B. MASON,
ALFRED FREY.