NOTE.—*The application for a Patent has become void.*
This print shows the Specification as it became open to public inspection.

PATENT SPECIFICATION

Convention Date (Sweden): Feb. 24, 1920.

159,487

Application Date (in United Kingdom): May 31, 1920. No. 14,732/20.

Complete not Accepted.

COMPLETE SPECIFICATION.

Method for Generating Electrical Energy.

I, ROBERT NORRBY, of 10, Hamngatan, Stockholm, subject of the King of Sweden, 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:—

The generation of high power electrical energy is usually effected by mechanical interruption by means of special and complicated arrangements which consume a considerable amount of power.

According to the present invention electrical energy is generated not through mechanical interruption, or by chemical action but through physical interruption.

The method adopted consists in effecting the interruption required in order to obtain the cutting of the field of the lines of force of two current circuits by subjecting the conductors of the one circuit to the action of the alternate poles of magnets of which the cores are connected with the conductors of the same current.

One form of apparatus for carrying out the method is shown by way of illustration or example, in the drawings hereto appended whereon:—

Figure 1 is a perspective view of a section of the apparatus taken on the line A—B of Fig. 2.

Figure 2 is a face view of the central part of the apparatus.

Figure 3 is a section along the line C—D of Fig. 2.

Figures 4 and 4^a show the connections between the plates and the magnet cores, —Figure 4 being a view looking in the direction of the arrow E and Figure 4^a a view looking in the direction of the arrow F, Figure 1.

Figure 5 is a diagrammatic representation of the connections between the different plates *c* of the apparatus.

Figure 6 is a diagrammatic representation of the way in which the windings are wound between the plates.

Referring to the drawings:—

a represents a base on which are two sets of frames *b*. and between the frames *b*, are laid conducting metal plates *c*. In the example selected for illustration there are 14 plates on each side. Over the plates are windings *d*, so placed that the positive of the winding *d* is led from a low power battery *e* over the lowest pair of plates to the third pair and so on. The negative of the winding *d* goes to the second pair of plates and from there to the fourth, and so on (Fig. 6). Between the two groups of frames there is a central piece *g* (Fig. 2) provided with a number of sliding contacts *h* which are connected with magnet cores *k* surrounded by windings *l*. The contacts *h* are placed directly opposite the contacts *i*, and these are also connected with the separate plates *c*. In addition to the sliding contacts *h* there are terminals *m* fitted at the outer ends on the front of the central piece. The terminals *m* serve to bring in a low power electric current from another battery.

The plates *c* are electrically connected with one another through a third low power battery *o*, in such a manner that the negative conducting wire goes to the first pair of plates, then to the third, the fifth, and so on, while the positive goes to the second, the fourth, the sixth, *etc.*

[*Price* 1/-]

pair of plates. Each pair of oppositely disposed plates are further connected by means of conductors *p*. The end wires of each pair of plates are connected with similar poles to the end wires of the plate windings *d*, so that the circuits of the batteries are coupled in parallel, but in opposite directions. The separate plates, as for example *c*, are connected by conducting wires *q* with the terminals, or with the sliding contacts, on both sides of the centre piece *g* (Figs. 4 and 4ª). Between the two inner sides of the groups of frames *b* there is fitted a central piece in such a way that the terminals *h* are in contact with the sliding contacts *i*.

In the central piece (Fig. 2) a portion *r* is broken out to show that the cores with the windings are fitted directly opposite one another on both sides. The windings *l* round the magnet cores *k* are fed from a low power current battery *s*. A conductor passes from the battery *s* to the connecting terminal *m* and from there through the windings of the bobbins on the one side and then through the opening *t* to the other side of the central piece *g*, whence it goes through the windings of the bobbins on that side and then from the last bobbin back to the battery, thereby completing the circuit. The pole cores are therefore constantly in a closed circuit as soon as the switch *u*, Fig. 4ª is closed.

The mode of operation is as follows:— The pairs of plates are first and foremost in electrical connection one with another, being fed by the low power battery *o*. The windings *d* over the plates are fed by a low power battery *e*, and lastly the windings *l* round the cores *k* are connected to a low power battery *s*. The separate pairs of plates, which are polarised through the battery *o*, are fitted with opposite poles over each other, while the windings *d* (Fig. 6) are arranged in a direction contrary to the direction of the current from the battery *o*. If all three batteries are coupled up, the currents from them in the closed circuits, which are hereafter named according to the respective battery *o*, *e* and *s*, will behave in the following way:

The currents *o* and *e*, which flow in contrary directions as already mentioned bring about a constant state of tension between the field of the lines of force of the plate current and of the current in the windings. The constant tension is interrupted with very high frequency through the action of the magnet poles as soon as the third circuit is closed and the energy latent in the plates (rising up from below) is released through the high frequency interruptions.

An increase of the final energy can be obtained by enlarging the size of the plates and/or by increasing their number.

The current consumers are connected to the current generator in such a way that the line conductor is connected to the end terminals of the current circuits *o* and *e* which are brought together for the purpose.

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

1. A method of generating electric energy without mechanical interruption, characterized in that the interruption required to cut the field of the lines of force of both current circuits is effected by alternately exposing the conductors of the one circuit to the action of the poles of magnets whose cores are in connection with the conductors of the same circuit.

2. Apparatus for carrying out the method claimed in Claim 1, having the characteristic feature that a set of plates, arranged with their poles opposite to one another and in electrical connection through one with another with a low power current battery, lie between windings which are supplied, from another low power battery, with current flowing in a direction opposite to the direction of the current passing through the plates: while at the same time, the plates are also in connection with the cores of magnets of which the windings are connected with a third low power current, in such a manner that when all the three circuits are closed the tension of the first circuit is physically interrupted with high frequency.

Dated this 29th day of May, 1920.

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Chartered Patent Agents,
94, Hope Street, Glasgow.

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Fig.1.
(A-B)

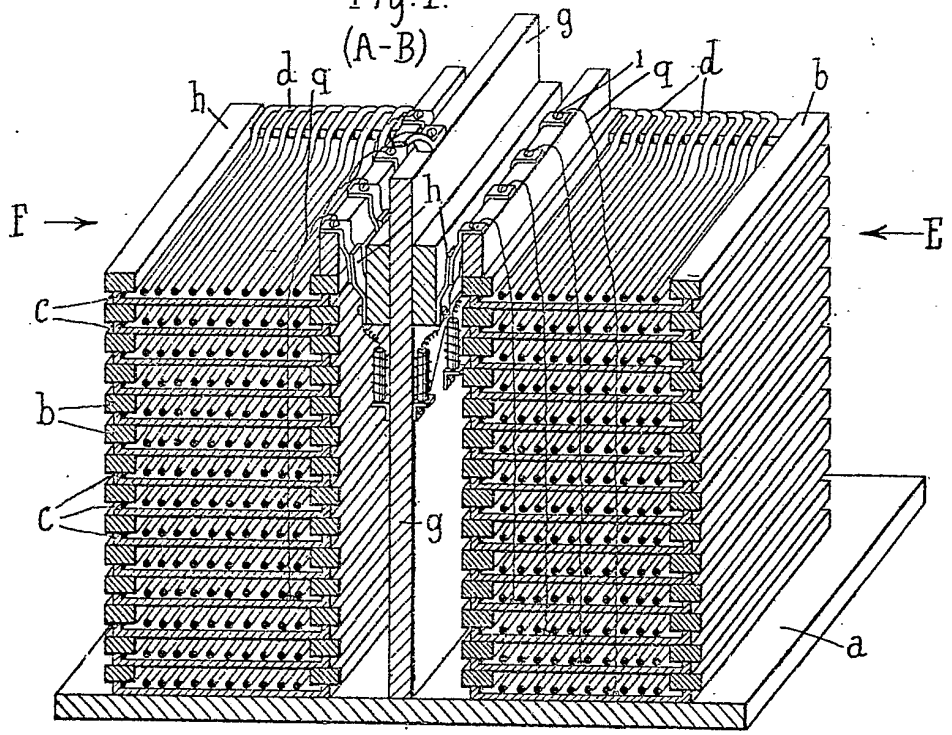


Fig.2.

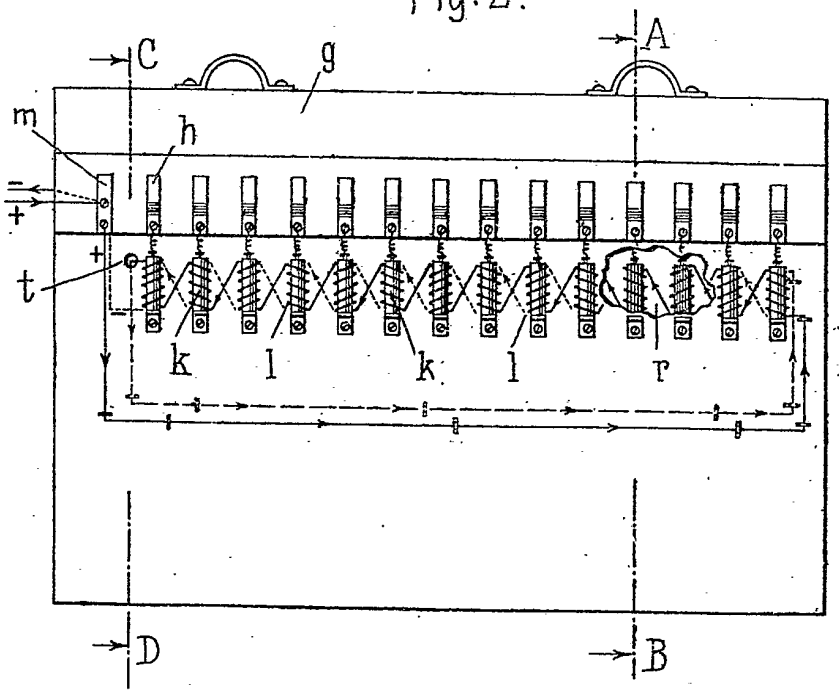
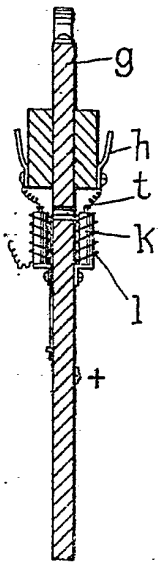


Fig.3.(C-D)



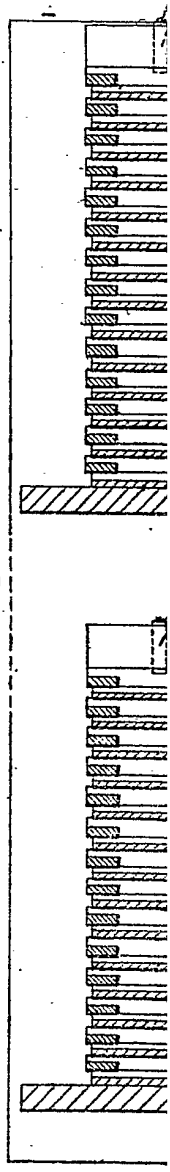


Fig.4.

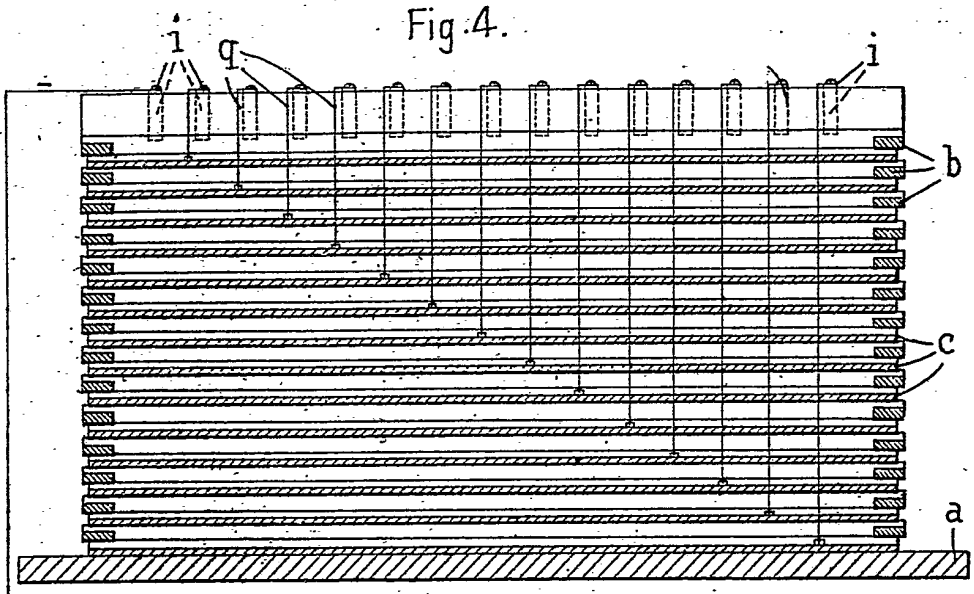
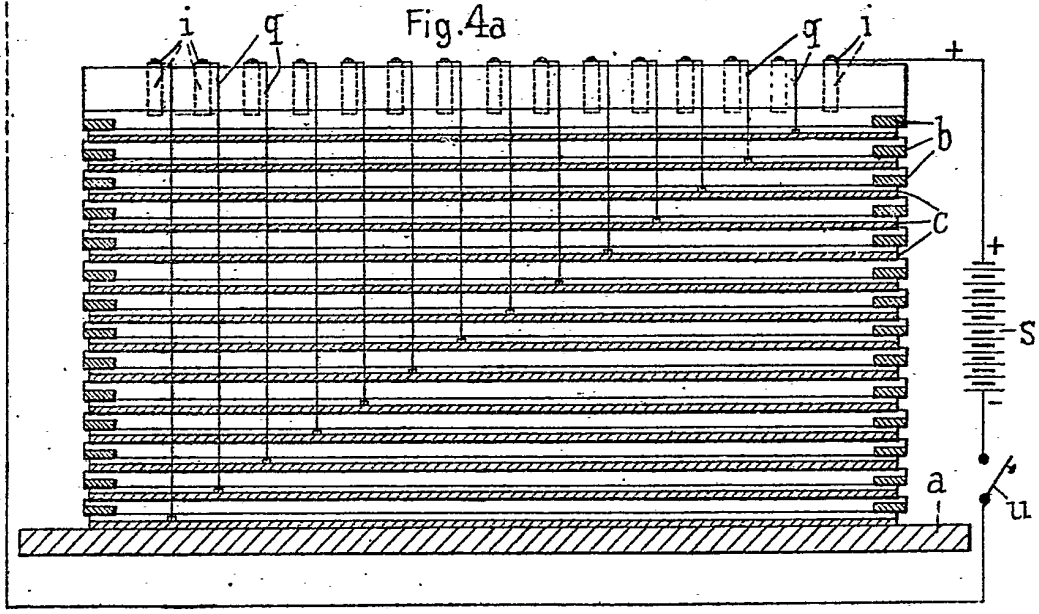


Fig.4a



g.3.(C-D)

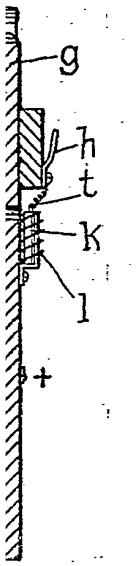


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Fig.1.
(A-B)

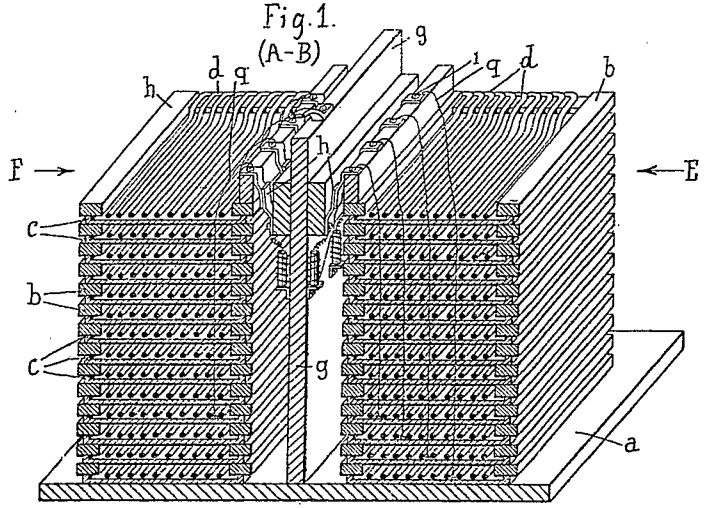


Fig.2.

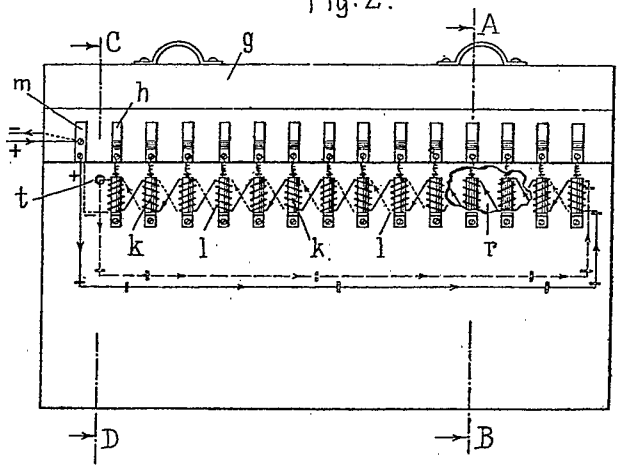


Fig.3.(C-D)

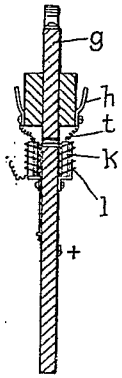


Fig.4.

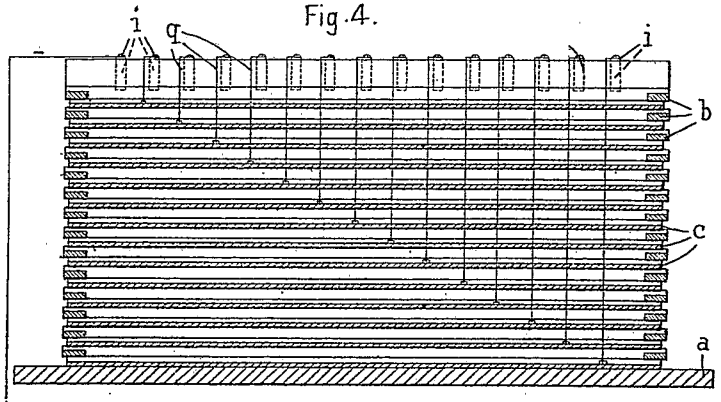
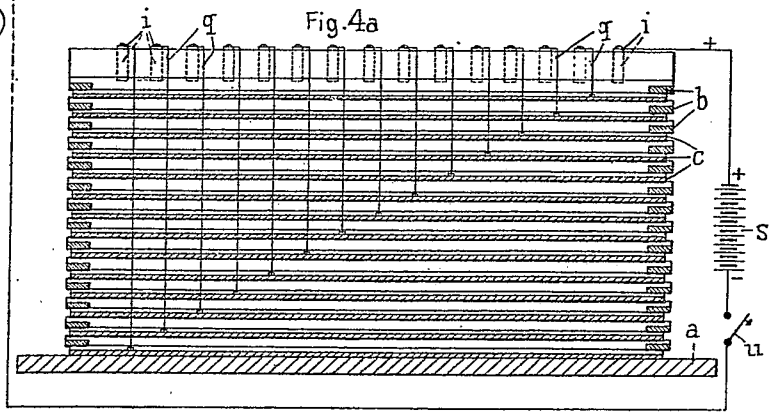


Fig.4a



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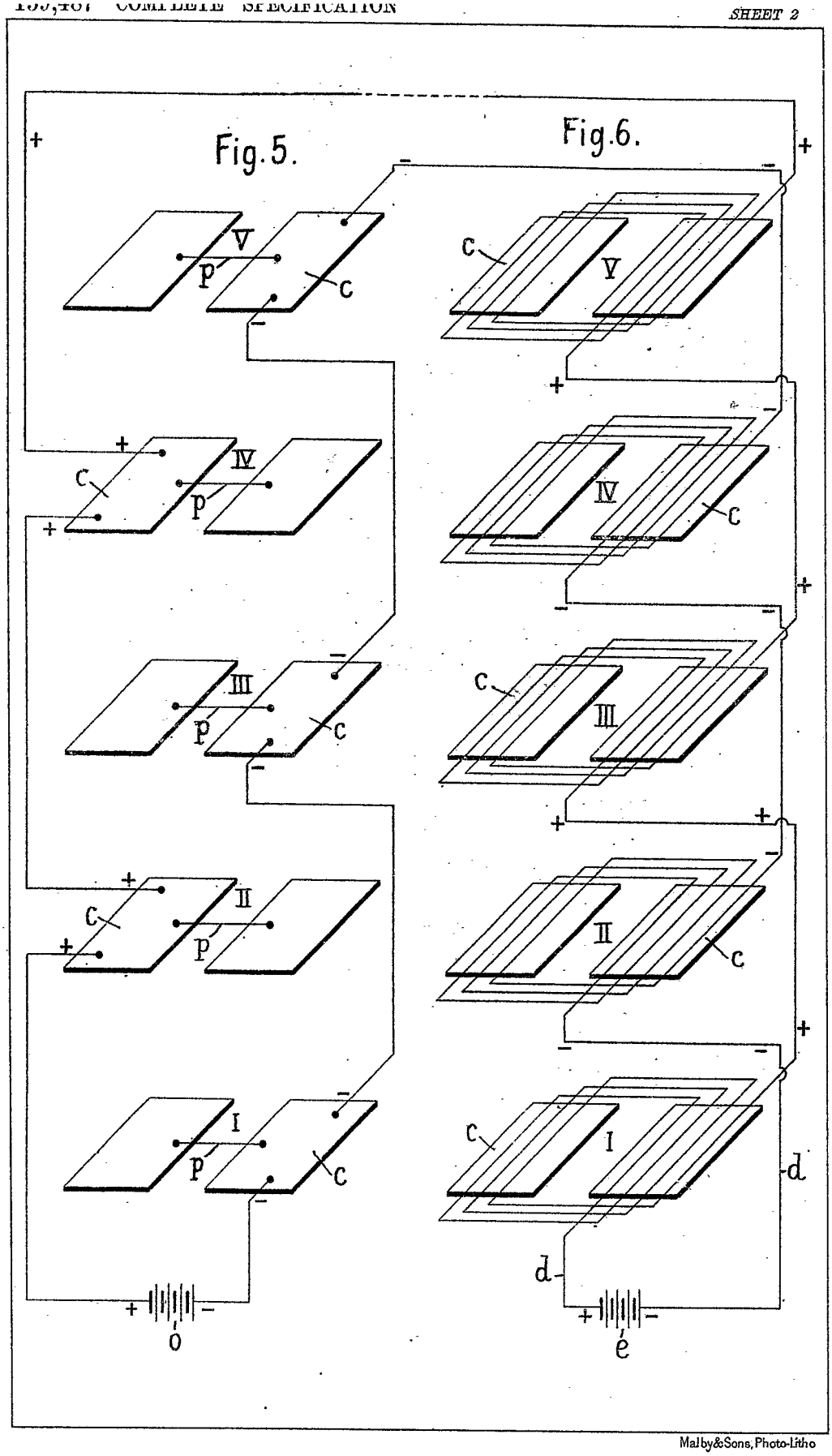

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