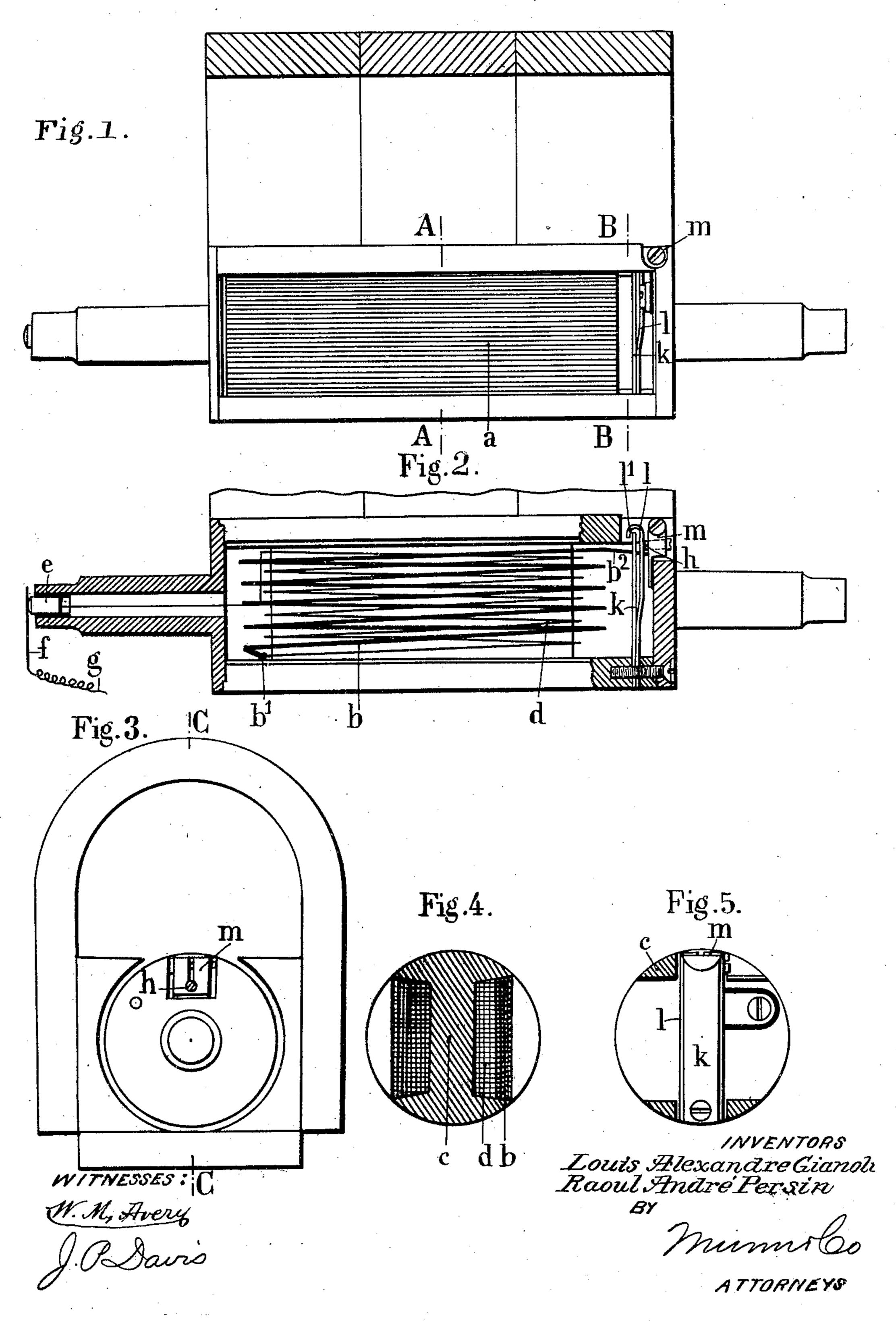
## L. A. GIANOLI & R. A. PERSIN. MAGNETO ELECTRIC GENERATOR. APPLICATION FILED APB. 12, 1905.



## UNITED STATES PATENT OFFICE.

LOUIS ALEXANDRE GIANOLI, OF PARIS, AND RAOUL ANDRÉ PERSIN, OF VILLIERS-LE-BEL, FRANCE, ASSIGNORS TO SAID LOUIS ALEXANDRE GIANOLI, OF PARIS, FRANCE.

## MAGNETO-ELECTRIC GENERATOR.

No. 894,624.

Specification of Letters Patent.

Patented July 28, 1908.

Application filed April 12, 1905. Serial No. 255,147.

To all whom it may concern:

Be it known that we, Louis Alexandre Gianoli, of 26 Boulevard Magenta, in the city of Paris, Republic of France, electrical engineer, and Raoul André Persin, of Rue d'Aval, Villiers-le-Bel, Seine and Oise, Republic of France, mechanic, have invented Improvements in or Connected with Magneto-Electric Generators, of which the following is a full, clear, and exact description.

Our invention is an improvement in magneto-electric generators, and consists in certain novel constructions and combinations of parts hereinafter described and claimed.

The object of the invention is an electromagnetic machine characterized by the combination with the rotating secondary of a vibrator or breaker having a retarded action, the said breaker being carried by the secondary, and being intercalated in the primary circuit, and breaking said primary circuit when the intensity of magnetism on the core

of the secondary attains a suitable value.

In the drawings—Figure 1 is a side view of the rotatable secondary provided with our improvement. Fig. 2 is a section on the line C—C of Fig. 3. Fig. 3 is an end view of the secondary. Fig. 4 is a section on the line A—A of Fig. 1, and Fig. 5 is a section on the line B—B of the same figure.

The bobbin a, is provided with two superposed windings, the primary b being formed of coarse wire and traversed by a current which is generated at each turn of the core c by the

35 magnetic flux.

The ends of the primary winding are connected the one at  $b^2$  to a spring plate m mounted on the end of the core and insulated therefrom, and which carries the contact 40 piece h and the other to the core c at b'. The secondary d has one end connected to the core at the point b', and the other end is connected with a contact point e arranged in the axis of the core, and having a rubbing contact with a contact f connected with the wire g of the secondary current supply.

The armature k, is of magnetic material and is mounted parallel with and spaced apart from a diamagnetic plate l, having upon its upper end a hook l', between which hook

and the body portion of the diamagnetic plate, the plate l is arranged. The diamagnetic plate l is normally in contact with the contact h of the circuit breaker, which is mounted upon a spring plate m

mounted upon a spring plate m.

In operation the induction coil being rotated, an induced current is generated and the armature k is attracted toward the core of the coil. In the movement of the armature toward the core, the upper end thereof 60 engages the hook portion l' of the diamagnetic plate 7, and is temporarily retarded in its movement until the induced current attains a sufficient value to overcome the resistance of the diamagnetic plate, when the 65 said plate is moved out of contact with the contact h and the circuit is broken. At the moment when the spring l is removed from the contact piece h, the primary current is cut off, thereby producing an induction cur- 70 rent in the secondary winding:

It will be noticed from the description, that both the primary and the secondary winding and the vibrator or breaker are all mounted on the rotary core of the magnet, 75 the vibrator being operated automatically by the action of the induced current, and re-

quiring no mechanical control.

Having thus described our invention, what we claim as new and desire to secure by Let- 80 ters Patent is—

The combination of a magneto-generator provided with a revoluble core of magnetic material, a primary winding and a secondary winding carried by said core, a breaker 85 mounted upon said core and revoluble therewith, said breaker being operated automatically by the attraction of the magnetic flux of said core due to its rotation, and magnets disposed adjacent to said revoluble core for 90 inducing magnetic flux therein.

The foregoing specification of our "improvements in or connected with magneto electric generators" signed by us this 31st

day of March 1905.

LOUIS ALEXANDRE GIANOLI. RAOUL ANDRÉ PERSIN.

Witnesses:

HANSON C. COXE, MAURICE H. PIGNET.