

B. P. & F. I. REMY.
MAGNETO ELECTRIC GENERATOR.
APPLICATION FILED MAR. 3, 1909.

959,166.

Patented May 24, 1910.

Fig. 1.

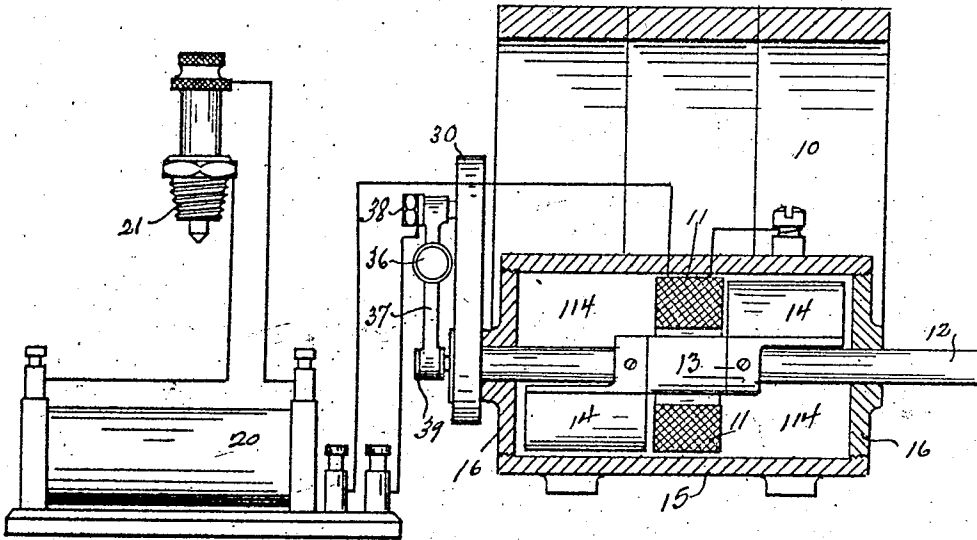


Fig. 2.

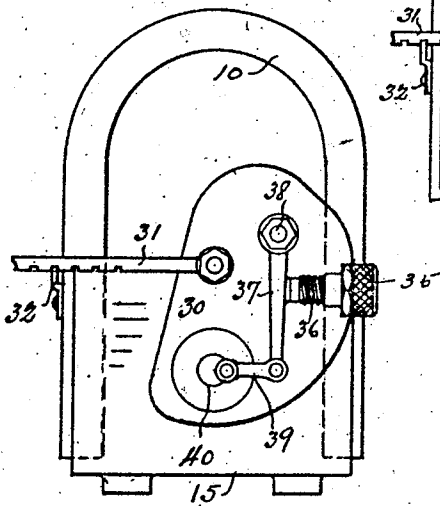


Fig. 3.

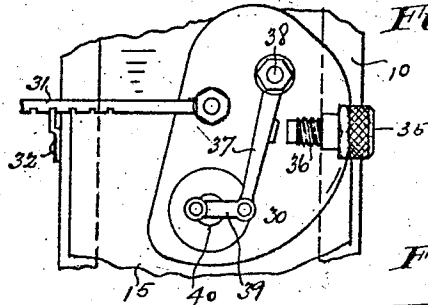
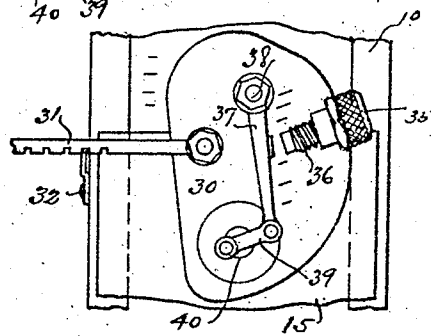


Fig. 4.



WITNESSES:
O. M. McLaughlin
L. H. Boink

INVENTORS.
Frank L. Remy and
BY Benjamin P. Remy
H. H. Wood
ATTORNEY.

UNITED STATES PATENT OFFICE.

BENJAMIN P. REMY AND FRANK I. REMY, OF ANDERSON, INDIANA, ASSIGNORS TO
REMY ELECTRIC COMPANY, OF ANDERSON, INDIANA, A CORPORATION.

MAGNETO-ELECTRIC GENERATOR.

959,166.

Specification of Letters Patent.

Patented May 24, 1910.

Application filed March 3, 1909. Serial No. 481,210.

To all whom it may concern:

Be it known that we, BENJAMIN P. REMY and FRANK I. REMY, of Anderson, county of Madison, and State of Indiana, have invented a certain new and useful Magneto-Electric Generator; and we do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, in which like numerals refer to like parts.

The object of this invention is to improve the construction of magnetos for gas engine ignition or other purposes, particularly in respect to the circuit breaking and spark timing apparatus therein. This is an improvement over the invention set forth in Letters Patent No. 763,510, granted to us June 28, 1904.

The nature of the invention and improvement will be understood from the accompanying drawings and the following description and claims.

In the drawings Figure 1 is a central, vertical, longitudinal section through the magneto and a side elevation of the inductor coil and spark plug, with the electrical connection between said parts shown by diagram. Fig. 2 is an elevation of the left-hand end of the magneto with the cap over the circuit breaker removed and showing the parts in position when the circuit is closed. Fig. 3 is the central portion of the same showing the parts when the circuit is broken. Fig. 4 is the same as Fig. 3 showing the circuit breaker adjusted for changing the timing of the sparking.

In the drawings there are shown magnets 10, a stationary winding 11, an inductor shaft 12 with an inductor 13 thereon within the winding, and with wings 14 forming a part of the inductor and projecting therefrom in opposite directions to cooperate with the pole pieces 114. This mechanism is mounted in a suitable casing 15, into which ends 16 are secured, which furnish bearings for the shaft 12. At each turn or revolution of the inductor the direction of flow of the lines of magnetic force through the coil 11 is alternately reversed, thus inducing in the coil two electrical current waves or impulses for each revolution.

Fig. 1 shows the invention in connection

with a Ruhmkorff coil 20 and an ignition plug 21, both of which may be of the usual construction. In the primary circuit of coil 20, a circuit breaker is located on the magneto or generator as follows: On the end of the inductor shaft 12 there is loosely mounted a plate 30, held in position by the adjusting bar 31, which is notched to engage holding means 32, whereby said plate 30 is held in its adjusted position. A stationary binding post 35 is mounted on the plate 30 and suitably insulated and provided with a terminal 36 in position to be engaged at times by the contact lever 37, which at its upper end is pivoted to the plate 30 by the pin 38 and at its lower end is pivotally connected by a connecting bar 39 eccentrically with a disk 40 secured on the shaft and in electrical communication therewith.

As the inductor shaft rotates it carries one end of the bar 39 around its axis and thus moves the lower end lever 37 so as to bring said lever alternately into and out of contact with the terminal 36 and thus make and break the circuit to time the action of said circuit breaker with reference to the rotation of the inductor shaft and the action of the engine. The plate 30 is adjusted in its position by means of the bar 31 thus alternating the relation of the fulcrum of the pin 38 of the lever 37 with reference to the axis of the shaft and thus regulating the time that the sparking occurs.

The disk may be mounted in connection with the inductor shaft or any other part driven by or operating synchronously with such shaft.

What we claim as our invention and desire to secure by Letters Patent is:

1. A magneto electric ignition apparatus including an inductor shaft, a plate loosely mounted on the shaft, a circuit closing and breaking lever pivotally mounted at one end on said plate, means eccentrically and positively reciprocated by said shaft that is pivotally connected with the other end of said lever for oscillating it, a terminal in position to be engaged by said lever, and means for adjusting the position of said plate.

2. A magneto electric ignition apparatus including an inductor shaft, a plate loosely mounted on the shaft, a circuit closing and

breaking lever pivotally mounted at one end on said plate, a disk on said shaft, a connecting bar pivoted eccentrically on said disk and pivotally connected with the other end of said lever for oscillating it, and a terminal in position to be engaged by said lever.

In witness whereof, we have hereunto

affixed our signatures in the presence of the witnesses herein named.

BENJAMIN P. REMY.

FRANK I. REMY.

Witnesses:..

J. G. BRONSON,

W. R. POLAND.