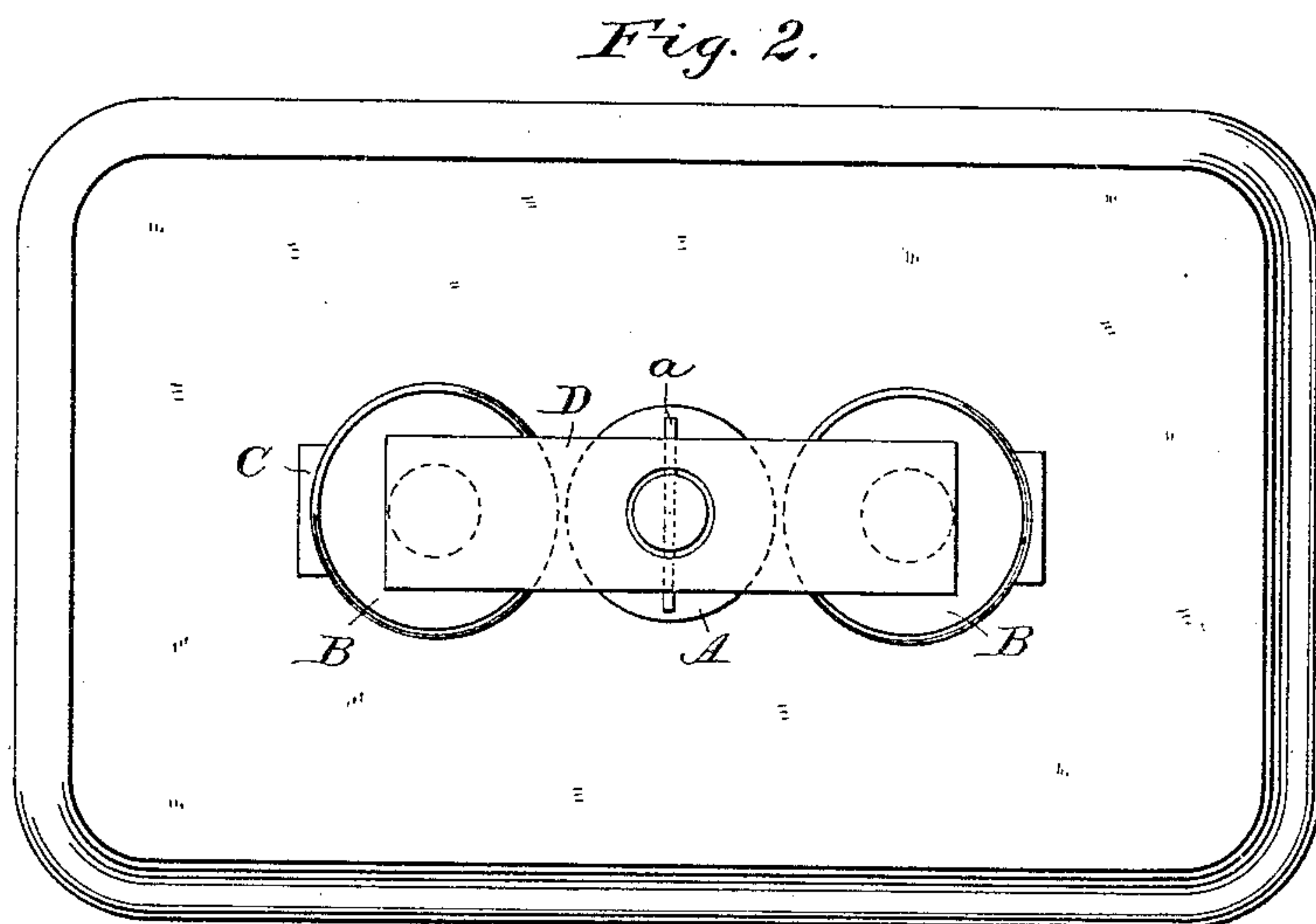
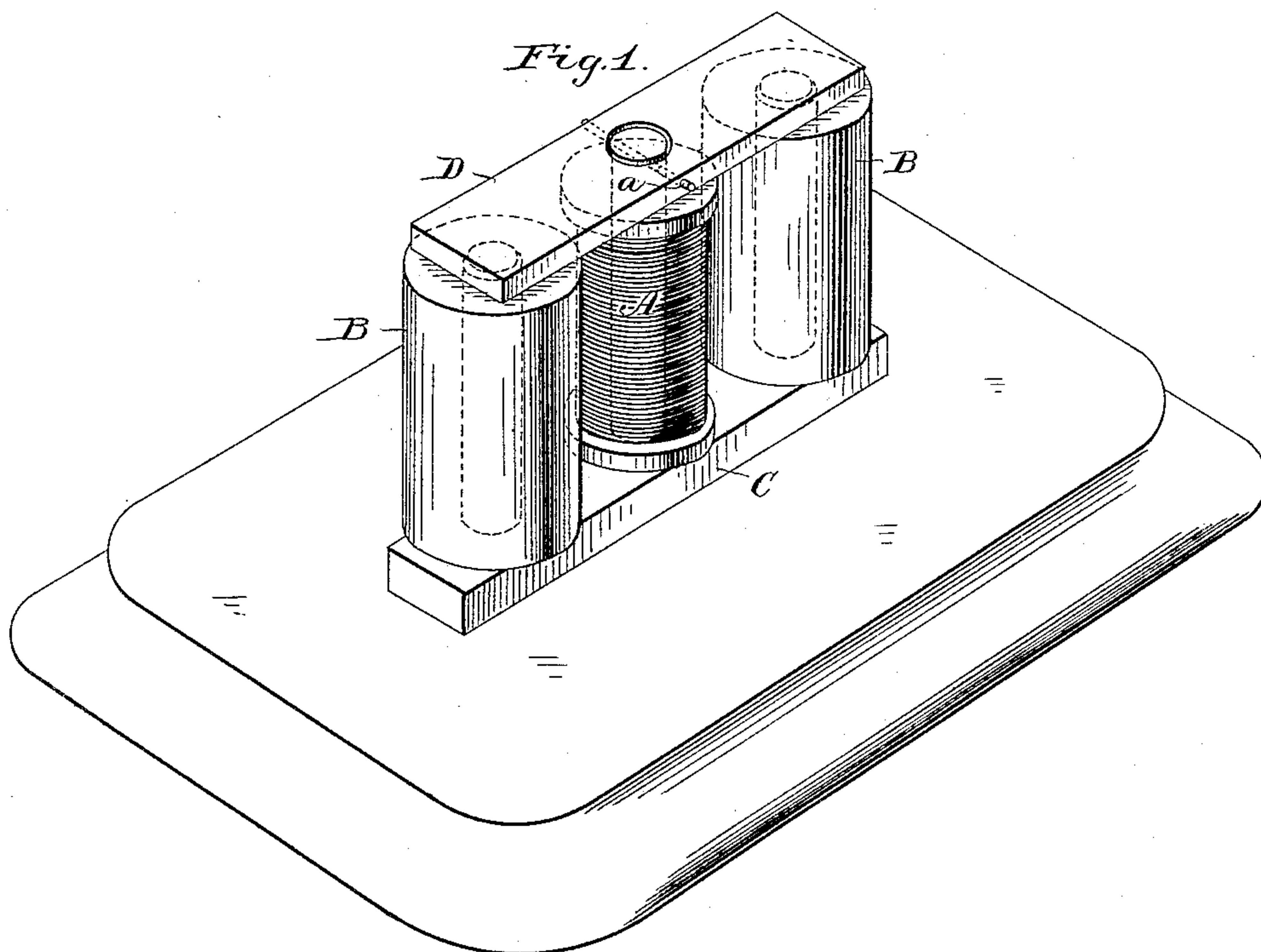


(No Model.)

E. J. MALLETT.  
POLARIZED ELECTRO MAGNET.

No. 384,321.

Patented June 12, 1888.



Witnesses:  
Marvin A. Curtis  
E. A. Dick

Inventor:  
Edward J. Mallett.  
by Marcelus Sailer  
his attorney

# UNITED STATES PATENT OFFICE.

EDWARD J. MALLETT, OF BAY SIDE, NEW YORK.

## POLARIZED ELECTRO-MAGNET.

SPECIFICATION forming part of Letters Patent No. 384,321, dated June 12, 1888.

Application filed February 17, 1887. Renewed April 5, 1888. Serial No. 269,660. (No model.)

*To all whom it may concern:*

Be it known that I, EDWARD J. MALLETT, of Bay Side, Long Island, in the State of New York, have invented a certain new and useful  
5 Improvement in Polarized Magnets, of which the following is a specification.

My invention is directed to an improved form of polarized magnet intended more particularly for use in polarized escapements or  
10 relays and automatic pole-changing apparatus, but which can be used for other purposes.

The invention is directed to obtaining a mechanically simple, compact, convenient, and at the same time efficient, arrangement of the  
15 parts which go to make up the instrument.

The nature of my invention can best be explained and understood by reference to the accompanying drawings, in which—

Figure 1 is a perspective view, and Fig. 2 is  
20 a plan, of an instrument embodying my invention.

The instrument consists of three electro-magnets, A B B, affixed to a common yoke, C, with armature D, pivoted at *a* to the pole of the central magnet, A, and adapted to rock from the  
25 pole of one to the pole of the other of the two exterior magnets, B B. The central magnet, B, when the instrument is in operation, is to be maintained in a closed circuit of uniform  
30 polarity. The armature D is inductively mag-

netized through its pivotal connection with the pole of this magnet. The magnets B B are designed to be included in the working-circuit, through which reversals may be maintained or may be sent from time to time, the effect of the  
35 reversals being of course to produce corresponding vibrations of the armature D.

This instrument is exceedingly compact, can be conveniently and efficiently used in small  
40 space, and is simple and inexpensive.

What I claim, and desire to secure by Letters Patent, is—

The herein-described polarized magnet, consisting of the three electro-magnets affixed to a common yoke, with an armature pivoted to  
45 the core of the intermediate magnet and adapted to rock from pole to pole of the exterior magnets, said armature being inductively magnetized through its pivotal connection with the pole of the intermediate magnet, which is  
50 maintained in a closed circuit during the operation of the instrument, substantially as and for the purposes set forth:

In testimony whereof I have hereunto set my hand this 12th day of February, A. D. 1887.

EDWARD J. MALLETT.

Witnesses:

CHARLES TAYLOR,  
GEO. L. DEWEY.