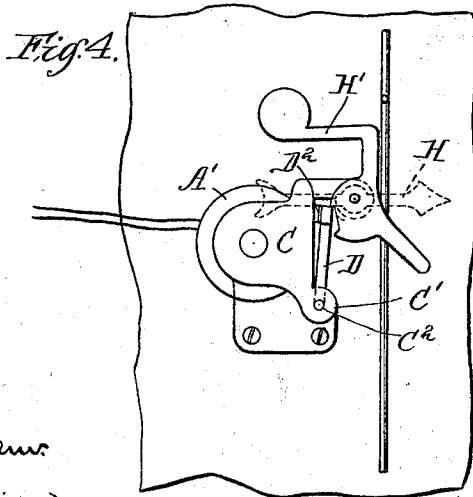
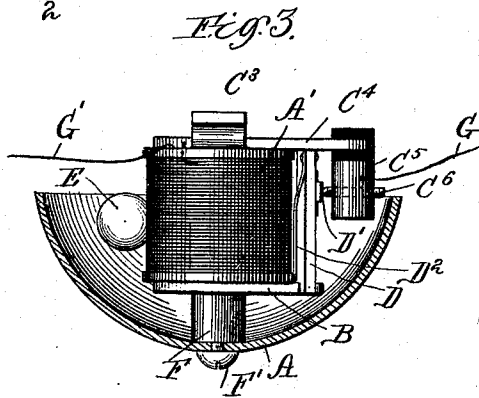
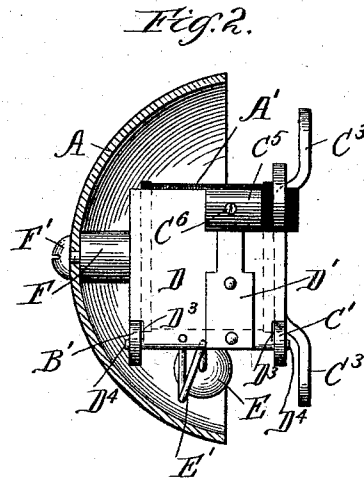
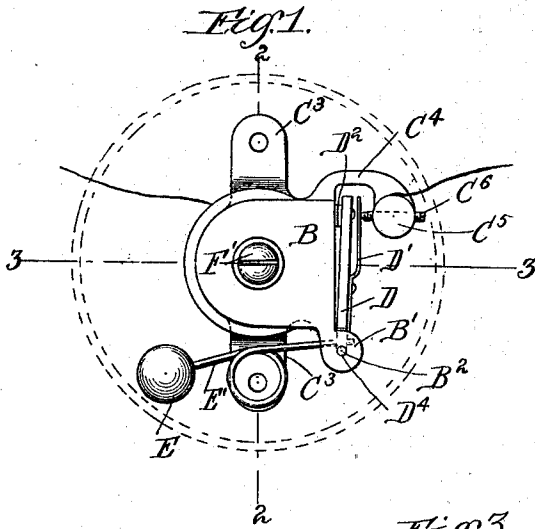


(No Model.)

W. O. MEISSNER.
ELECTROMECHANICAL DEVICE FOR BELLS, &c.

No. 513,587.

Patented Jan. 30, 1894.



Witnesses.
S^r M. Rheum
Wm. J. Huming

Inventor.
William O. Meissner.
by Francis W. Parker
Atty

UNITED STATES PATENT OFFICE.

WILLIAM O. MEISSNER, OF CHICAGO, ILLINOIS.

ELECTRO-MECHANICAL DEVICE FOR BELLS, &c.

SPECIFICATION forming part of Letters Patent No. 513,587, dated January 30, 1894.

Application filed September 11, 1893. Serial No. 485,299. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM O. MEISSNER, a citizen of the United States, residing at Chicago, Cook county, Illinois, have invented a new and useful Improvement in Electro-Mechanical Devices for Bells, Annunciators, &c., of which the following is a specification.

My invention relates to electro-mechanical devices for bells, annunciators, &c., and has for its object the production of a cheap, durable and efficient device which can be used for these several purposes.

Referring to the accompanying drawings: Figure 1 is a plan view of the device as applied to an electric bell, with gong removed. Fig. 2 is an elevation with gong cut, on line 2, 2, Fig. 1. Fig. 3 is an elevation with gong cut on line 3, 3, Fig. 1. Fig. 4 shows the device applied to an annunciator.

Like letters refer to like parts throughout.

Referring to Figs. 1, 2 and 3,—A is the gong of the bell, and A' the spool or coil of the magnet to the core of which are attached the flat pole pieces B, C. The pole piece B has a projecting piece B', through which is a hole B². The pole piece C has a projecting piece C' through which is a hole C² similar to the piece B'. The pole piece C is also provided with the lugs C³, C³ by which the device is attached to its support, and the arm C⁴ to which is attached the brass piece C⁵ carrying the adjusting screw C⁶. Said brass piece C⁵ is insulated from the arm C⁴.

D is the armature to which is attached the contact spring D', and the spring D² which normally holds the armature away from the pole pieces. The armature D is provided with the notches D³, D³, and the pins or projections D⁴, D⁴. Said armature is pivotally attached to the two pole pieces B, C, by means of the projections D⁴, D⁴, said projections passing through the holes B², C², in the projecting pieces B', C', on the two pole pieces. The bell hammer E is attached to the movable armature by the arm E'.

F is a post upon which the gong A rests, said gong being held in position by the screw F'. One end of the wire on the spool A' is connected to the pole piece C.

G, G' are the wires leading to the battery.

Fig. 4 shows the device as applied to an annunciator,—the gong and contact-making and breaking device being replaced by the indicating needle H and gravity drop H'. It will be seen that in this device the armature completes the magnetic circuit between the two pole pieces of the coil or spool A'.

It is evident that the form and arrangement of these various parts can be altered without departing from the spirit of my invention, and I therefore do not wish to be limited to the precise construction shown.

The use and operation of my invention are as follows: Referring to Figs. 1, 2 and 3, the current enters by the wire G, thence through piece C⁵ and screw C⁶ to contact spring D', thence through armature D, thence through pole piece C, thence through coil or spool A', and thence through wire G', back to the battery. When the circuit is completed through the coil by means of a push button or the like, the armature is attracted by the pole pieces B and C. The motion of said armature causes the bell hammer E to strike the gong A. The motion of armature D also moves contact spring D', so as to break the circuit. After the circuit is broken, the spring D² moves the armature back to its normal position, *i. e.*, until the circuit is again completed through screw C⁶ and contact spring D' when the same operation is repeated.

Fig. 4 represents the device as applied to an annunciator. When the circuit is completed through the spool or coil A', the armature D is attracted by the pole pieces, releasing the gravity drop H'. Said gravity drop falls and moves the indicating needle H.

I have shown my invention as applied to an electric bell, and annunciator, but it is evident that it can be used for various other purposes, and I therefore do not wish to be limited to the use herein described.

I claim—

1. In a magnet for electro-mechanical devices, the combination of a spool with pole pieces projecting therefrom, and an armature pivotally supported on both poles at one side of the spool and adapted to be moved to and from the pole pieces toward the other side of the spool.

2. In a magnet for electro-mechanical devices, the combination of a spool with a core, and laterally projecting pole pieces at the ends of the magnet and core, an armature substantially parallel to the magnet and core, and connected at one of its edges with both poles, and adapted at its opposite edges to engage both poles when the circuit is closed, said armature always substantially at right angles to the pole pieces.
3. In an electro-mechanical device, the combination of a spool with laterally projecting pole pieces at the ends thereof, a flat armature substantially parallel with the core of the spool and pivoted to the pole pieces, a pivoted drop weight associated with the armature and provided with a lug whereby it may engage the armature when the current is not applied, and a suitable indicating needle associated with such drop weight.

WILLIAM O. MEISSNER.

Witnesses:

DON. M. CARTER,

WALTER J. GUNTHERP.