(No Model.)

C. J. HAMILTON.

ELECTRO MAGNETIC ANNUNCIATOR.

No. 422,773. Patented Mar. 4, 1890

FIG. 1.

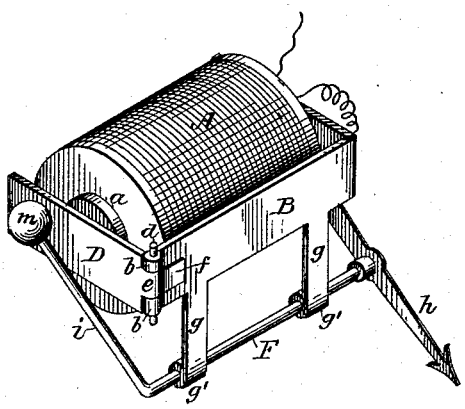


FIG. 3.

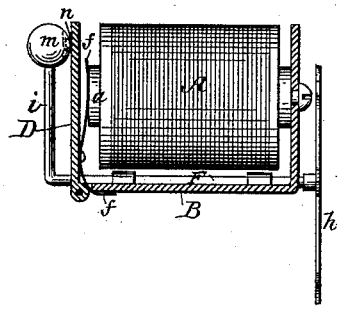


FIG. 4.

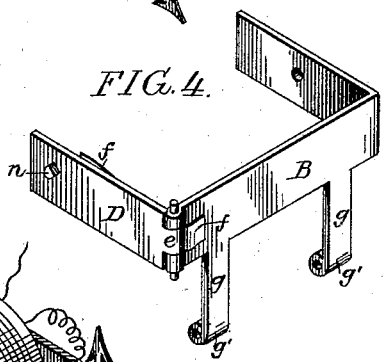
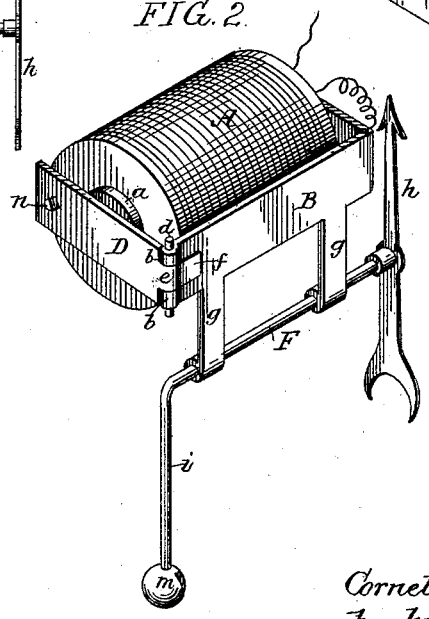


FIG. 2.



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Howson & Howson

UNITED STATES PATENT OFFICE.

CORNELIUS J. HAMILTON, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO THE NOVELTY ELECTRIC COMPANY, OF SAME PLACE.

ELECTRO-MAGNETIC ANNUNCIATOR.

SPECIFICATION forming part of Letters Patent No. 422,773, dated March 4, 1890.

Application filed August 5, 1889. Serial No. 319,719. (No model.)

To all whom it may concern:

Be it known that I, CORNELIUS J. HAMILTON, a citizen of the United States, and a resident of Philadelphia, Pennsylvania, have invented certain Improvements in Electro-Magnetic Annunciators, of which the following is a specification.

The object of my invention is to provide an extremely cheap and simple form of electro-magnetic annunciator, and this object I attain in the manner hereinafter set forth, reference being had to the accompanying drawings, in which—

Figure 1 is a perspective view of an electro-magnetic annunciator constructed in accordance with my invention, showing the pointer and its controlling device in the position of rest. Fig. 2 is a similar view showing the pointer and its controlling device released. Fig. 3 is a plan view of the device, partly in section; and Fig. 4 is a detached perspective view of part of the device.

A represents an electro-magnet of any desired construction, having a soft-iron core *a*, to one end of which is secured a frame B, consisting simply of a strip of sheet metal bent at the free end so as to form eyes *b* for the reception of the pintle *d*, to which is hung the armature D of the magnet, the latter also consisting of a simple strip of sheet metal bent at the end to form an eye *e* for the reception of the pintle, a spring *f* being secured to the armature and bearing upon the end of the core *a*, so as to thrust the armature outward or away from the pole of the magnet.

The strip B has depending arms *g*, bent at the lower ends so as to form bearings *g'* for a shaft F, which has at one end a pointer *h*, and is bent at the other end so as to form an arm *i*, terminating in a ball or weight *m*. This ball or weight is notched for engagement with a lug *n* on the outer face of the armature D, and when the arm *i* is adjusted to the position shown in Fig. 1 the lug engages with this notch in the weight *m*, and is held in engagement therewith by the action of the spring *f* upon the armature, the pointer *h* being then in the position of rest. When the magnet A is energized, however, the armature is attracted toward the pole *a* of the magnet, thus withdrawing the lug *n* from engagement with the notch of the weight *m* and permitting the latter to drop, thereby causing the shaft F to turn in its bearings *g'* and swinging the pointer *h* to the position indicating attention.

Other electro-magnetic annunciators of which I am aware are of a more complicated and expensive character than that forming the subject of my invention, which is marked by the fewness and extreme simplicity and cheapness of the parts composing the same.

Having thus described my invention, I claim and desire to secure by Letters Patent—

The combination of the magnet, the armature having a projecting lug on its outer face, the pointer-shaft having an arm carrying a weight mounted in front of the armature and swinging in a plane parallel with the face of said armature, said weight being notched for engagement with the lug on the face of the armature, and a frame secured to the magnet and having eyes for the pivot-pin of the armature and other eyes forming bearings for the pointer-shaft, substantially as specified.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

CORNELIUS J. HAMILTON.

Witnesses:
WILLIAM D. CONNER,
HARRY SMITH.