

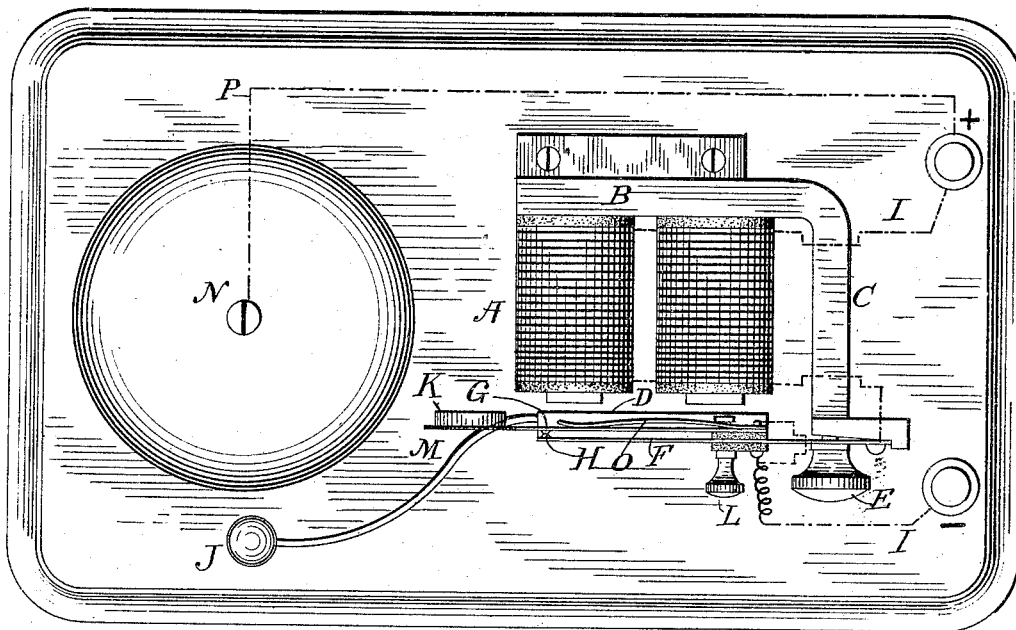
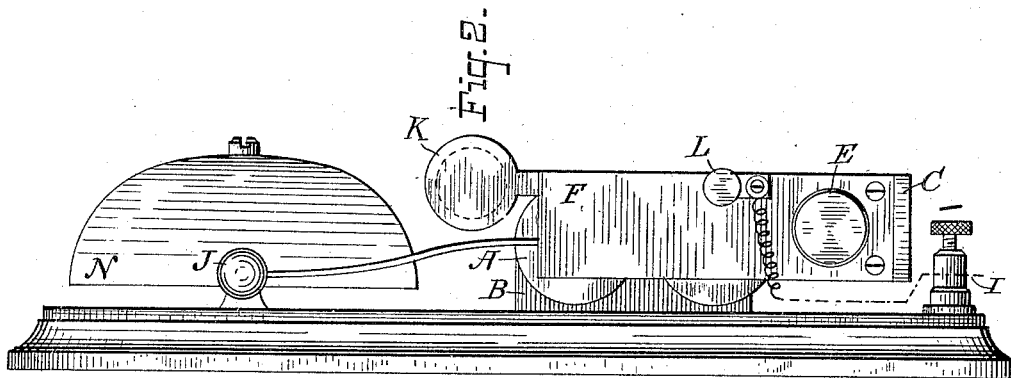
(No Model.)

E. CARHART.

ELECTRIC BELL.

No. 344,940.

Patented July 6, 1886.



ATTEST:

*J. H. Mudd*

*Edward P. Thompson*

Fig. 1.

INVENTOR:

*Elliott Carhart*

By *W. J. Johnston*

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# UNITED STATES PATENT OFFICE.

ELLIOTT CARHART, OF BROOKLYN, NEW YORK.

## ELECTRIC BELL.

SPECIFICATION forming part of Letters Patent No. 344,940, dated July 6, 1886.

Application filed April 3, 1886. Serial No. 197,635. (No model.)

### *To all whom it may concern:*

Be it known that I, ELLIOTT CARHART, a citizen of the United States, and a resident of Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Electric Bells, of which the following is a clear, complete, and exact description, setting forth in general and in detail my invention.

My invention relates to electric bells intended to be employed for any purpose—such as for signal-bells on railways, in offices, dwellings, upon doors of stores, or in telephone systems.

Its object is to provide an automatic cut-out device, whereby the circuit is broken immediately after the striker comes in contact with the bell. The bell depends for its action upon the principle of momentum.

As practically developed, it consists of two terminals located upon an operating-armature elastically connected to each other, the one being rigidly connected to the striker and the other similarly to a weight, so that in operating the circuit is not broken until the instant at which the striker comes in contact with the bell.

In order to illustrate the practical manner of carrying out the invention, and to enable others to construct and use the same, drawings are hereunto annexed and described, in which similar characters of reference represent corresponding elements.

Figure 1 is a general top view, and Fig. 2 a side view.

The device consists of the combination of an electro-magnet, A; a back piece or support, B, thereto, which has a right-angled projection, C; an adjustably and elastically supported armature, D, for said magnet, said armature being supported upon said projection, and the thumb-screw E and spring F being the means whereby the armature may be adjusted and elastically supported; two electric terminals, G and H, normally in the circuit I, which passes through said magnet; a striker, J, rigidly secured to the terminal H, which is in rigid connection to the armature, and a weight, K, similarly secured to the terminal G; an adjusting-screw, L, adapted to adjust the pressure between the springs F and M, the

latter supporting the terminal G, and a suitable base-board. When the two binding-posts + and — are brought into the electric circuit I by any means, the magnet A attracts its armature D, the striker J strikes the bell N, and the weight K, by its momentum, is thrown forward until the terminals G and H separate and break the circuit I. It should be noticed that the current breaks so quickly after the striker touches the bell that the former flies away from the latter and allows it to ring out clearly. The terminals again come together and the bell again rings. As long as the circuit is closed between the + and — posts a vibrating ringing is maintained.

The invention is not limited to the precise construction hereinbefore described and shown, as it is evident that many modifications may be made therein without departing from the spirit of the invention. The wire P connects the bell N and the binding-post +, so as to insure the gongs leaving the bell on account of the weakening of the magnet by a portion of the current passing through wire P, bell N, gong J, and binding-post —.

The spring O, which presses upon the spring M, may be omitted, and so may the weight K in cases where the spring M is heavy enough to produce sufficient momentum; or the weight may be made larger, if desired. The details of construction may be varied indefinitely.

Having now stated the title, object, and nature of the said invention, having described its practical realization by reference to the accompanying drawings, and having particularly ascertained the manner in which the same operates to accomplish the said object, what I consider to be novel and original, and therefore claim as my invention, is—

1. In an electric bell, the combination of an operating-armature elastically supported, two electric terminals normally in contact, and having an operating connection with said armature, an elastic connection between the two terminals, a gong or striker for said bell, rigidly connected to one terminal, and a weight rigidly connected to the other terminal, substantially as and for the purpose described.
2. In an electric bell, two electric terminals located upon an operating-armature elastically connected to each other, the one being rigidly

connected to the striker of said bell and the other connected similarly to a weight, so that the terminals are in a closed electric circuit except for an instant after the striker has struck the bell, substantially as and for the purpose described.

3. In an electric bell, the combination of an electro-magnet, a base or support thereto which has a projection at right angles to itself, a spring and armature attached to said spring, which is adjustably supported upon the end of said projection, two electric terminals normally in the circuit which passes through said

magnet, a striker rigidly secured to that terminal more distant from the magnet, and a weight secured to that terminal which is nearer the magnet, substantially as and for the purpose set forth in the annexed specification.

In testimony whereof I have hereunto signed my name, in the presence of two subscribing witnesses, this 27th day of March, 1886.

ELLIOTT CARHART. [L. S.]

Witnesses:

EDWARD P. THOMPSON,  
PETER B. VERMILYA.