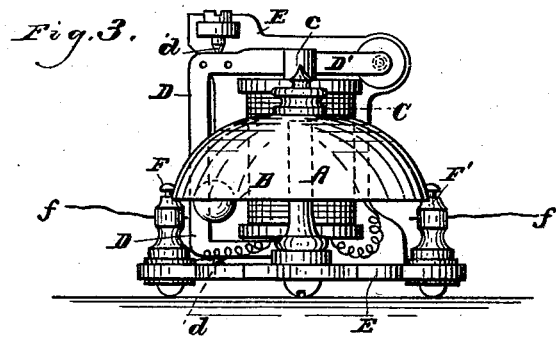
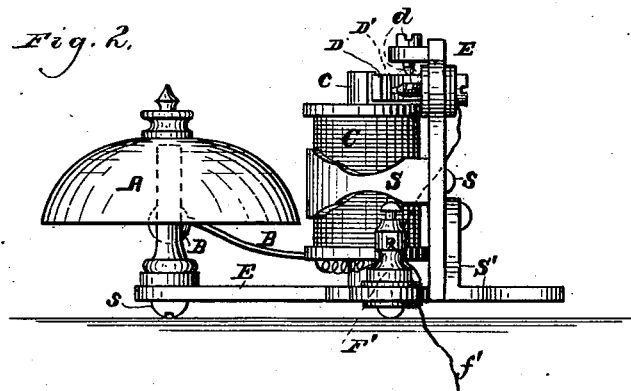
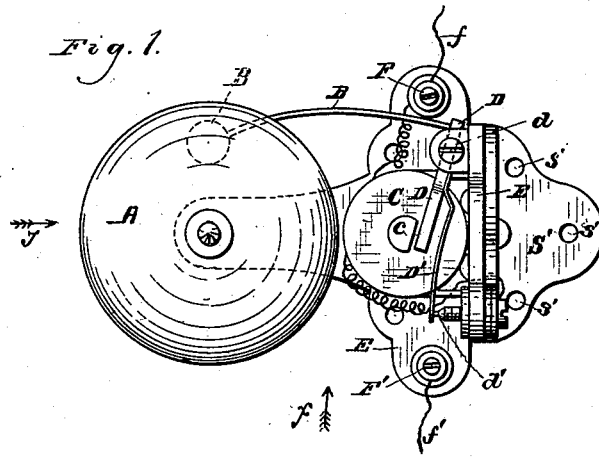


(No Model.)

H. B. PORTER.  
ELECTRIC BELL.

No. 261,172.

Patented July 18, 1882.



Witnesses,  
Henry Frankfurter,  
Jas. H. Whipple per.

Inventor,  
Henry B. Porter  
Merriam & Whipple  
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# UNITED STATES PATENT OFFICE.

HENRY B. PORTER, OF CHICAGO, ILLINOIS.

## ELECTRIC BELL.

SPECIFICATION forming part of Letters Patent No. 261,172, dated July 18, 1882.

Application filed March 6, 1882. (No model.)

*To all whom it may concern:*

Be it known that I, HENRY B. PORTER, of Chicago, county of Cook, State of Illinois, have invented certain new and useful Improvements in Electric Bells, of which the following is a specification.

The object is to improve electric bells; and the invention consists in supporting the bell-hammer on a pivoted U-shaped armature, in combination with a single helix having both ends of its core projecting above the ends of the armature, which has a spring attached to one end, all arranged as hereinafter more particularly described and claimed.

The accompanying drawings illustrate the invention.

Figure 1 is a plan view of an electric bell containing my improvements. Fig. 2 is a side view, representing the device looked at in the direction of arrow *x*, Fig. 1. Fig. 3 is an end view, representing the device looked at in the direction of arrow *y*, Fig. 1.

A in the drawings is the bell; B, the bell-hammer; C, the helix, the ends of the core of which project beyond the helix. D is the U-shaped armature, which is hung on pivots *dd* to the iron L-shaped frame or supporting-plate E of the device. D' is a spring secured to the under side of the armature and extending to and resting on a metallic point, *d'*. The bell-hammer is secured to the armature and moves with the same. The frame or plate E is supported in such position as to bring the armature under the end *c* of the core, so that the ends of the armature will fall away from them, and in doing so will bring the spring D' in contact with and resting upon the point *d'*. The bell-hammer is also then held in such position as to lean or incline toward the helix-core, so that its weight shall assist in keeping the spring in contact with said point.

The electric connection is made through

posts F F', the former being secured to the iron plate E by an insulating-connection and the latter by a metallic or non-insulating connection. The circuit-wire *f* passes from post F to the helix, and thence to the point *d'*, which is secured to the plate by an insulating-connection, thence through the armature, thence to the plate E, and thence to post F' and its connecting-wire *f'*, which represents the opposite pole of the battery. When the electric current is on, the armature is attracted toward the ends of the core till the hammer strikes the bell and the spring is lifted from the point *d'*. This breaks the circuit and releases the armature, which falls back, carrying the hammer in the opposite direction and bringing the spring again in contact with the point *d'*, thus causing a continuous vibration of the hammer as long as the wires *f f'* are charged.

The helix is secured to the plate by a metallic strip, S, passing over the helix and secured to the plate by screws *s s*. The bell is also secured to the said plate by a screw, *s*, and said plate is provided with a bracket, S', having screw-holes *s'* for fastening the device in place on the wall or place where it is desired to be used. The whole, thus constructed and arranged, forms a compact device of perfect operation and one not liable to get out of order.

What I claim is—

As an improvement in electric bells, a bell, A, hammer B, helix C, U-shaped armature D, spring D', point *d'*, and L-shaped plate E, combined and arranged with reference to each other, substantially as shown.

HENRY B. PORTER.

Witnesses:

JNO. H. WHIPPLE,  
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