

(No Model.)

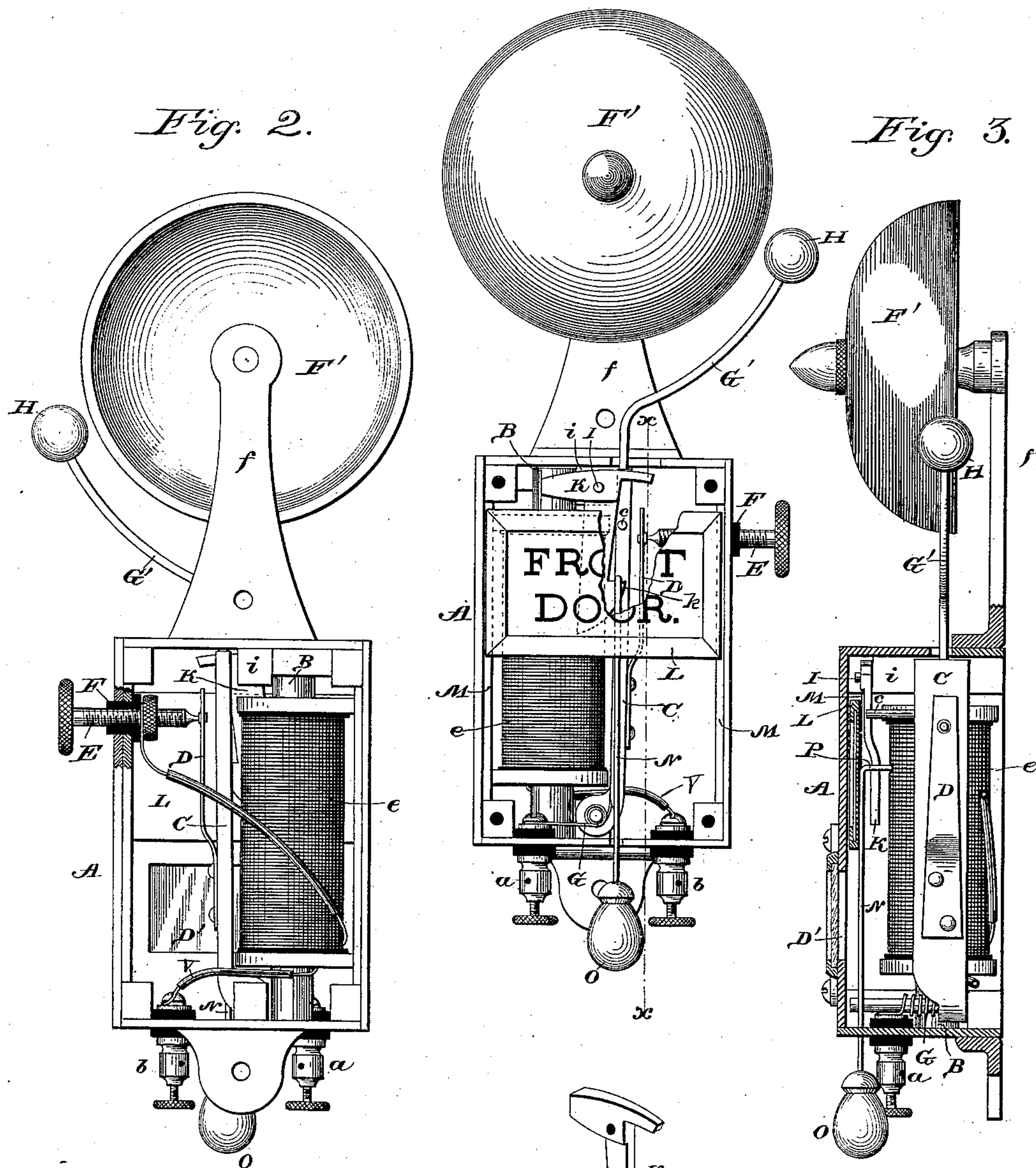
C. HENZEL.

ELECTRIC VIBRATING CALL OR SIGNAL BELL.

No. 351,599.

Patented Oct. 26, 1886.

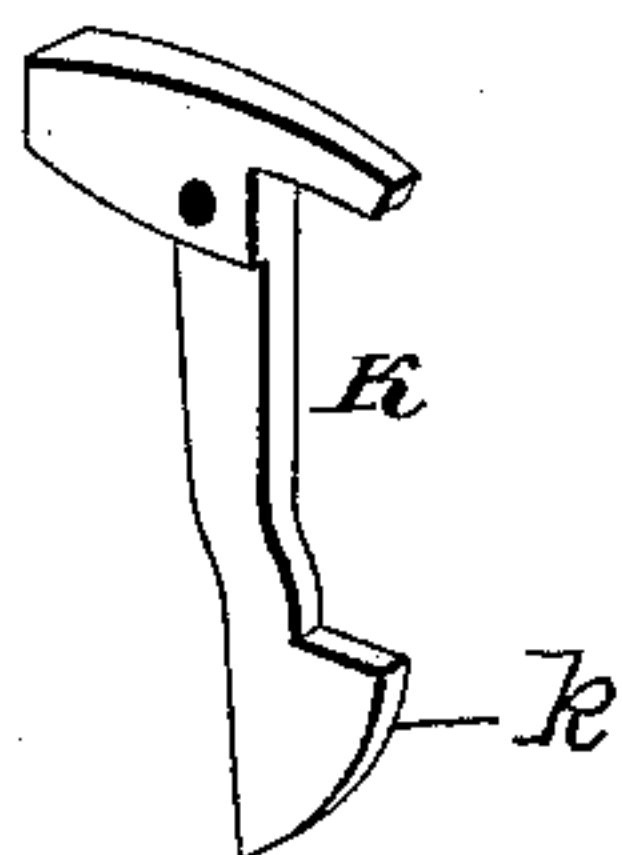
*Fig. 1.*



*Fig. 2.*

*Fig. 3.*

*Fig. 4.*



Witnesses

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# UNITED STATES PATENT OFFICE.

CHARLES HENZEL, OF NEW YORK, N. Y.

## ELECTRIC VIBRATING CALL OR SIGNAL BELL.

SPECIFICATION forming part of Letters Patent No. 351,599, dated October 26, 1886.

Application filed March 15, 1886. Serial No. 195,325. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES HENZEL, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented a new and useful Improvement in Electric Vibrating Call or Signal Bells, of which the following is a specification, reference being had to the accompanying drawings.

My invention relates to an improvement in electric vibrating call or signal bells, and it has for its object such improvements on the devices of this character now in use as will render the bell capable of indicating from what point the call or alarm is sounded; and it consists in the peculiar construction and combination of devices, that will be more fully set forth hereinafter, and particularly pointed out in the claims.

This invention is an improvement on that for which Letters Patent of the United States No. 318,472 were granted to me May 26, 1885.

In the drawings, Figure 1 is a front elevation of my improved apparatus, one side of the inclosing-case being removed, so as to disclose the interior mechanism, and a portion of the annunciating-card being broken away. Fig. 2 is a reverse elevation of the same. Fig. 3 is a vertical sectional view taken on the line  $xx$  of Fig. 1. Fig. 4 is a detail perspective view of the engaging-hook.

A represents an inclosing-case, to which are secured the insulated binding-posts  $a$  and  $b$  and the electro-magnet B.

C represents a vertical vibrating armature, which operates on one side of the electro-magnet in the usual manner. From the front side of this armature, near its upper end, extends a projecting stud,  $c$ . A contact-spring, D, is secured to the armature and forms one side of the circuit-breaker, the other side of which is formed by the point of the screw E, which passes through an insulating-bushing, F, that is secured to the case.

G represents a spring, which bears against the armature for the purpose of keeping the contact-spring D normally in contact with the point of the screw E. The lower end of this spring communicates electrically with the binding-post  $a$ . A gong, F', is carried by a post,  $f$ , that rises from the upper side of the

box, and to the upper end of the armature is secured an arm, G', that extends up through a slotted opening that is made in the upper side of the box, and terminates in a hammer, H. This hammer strikes against the side of the gong when the armature is attracted.

In the front side of the box is made an opening, D', that is closed by a pane of glass. A stud, I, extends horizontally from an offset,  $i$ , which depends from the upper side of the box, and on the said stud is pivoted a gravity-latch, K, which depends from the stud I and bears against the stud  $c$  of the armature. The lower end of the latch has a shoulder,  $k$ , projecting from one side.

L represents a rectangular frame, which works vertically in guideways M, formed in the sides of the box in rear of the front side thereof, and from the lower side of this frame L depends a rod, N, which passes through an opening in the lower side of the box and carries a weight, O. A card is placed in the frame L, and on the said card is inscribed the number or name of the door or place with which the apparatus is in circuit. The upper end of the rod N is bent at right angles, forming a horizontal stud, P, which projects from the rear side of the frame L, and engages with the shoulder  $k$  of the gravity-latch K when the said frame is raised to the position shown in solid lines in Fig. 1. When the circuit is closed, the armature is attracted by the electro-magnet, the gong is sounded, and the stud  $c$  of the armature moves the latch K to one side sufficiently far to cause the shoulder of the latch to disengage the stud P, so as to cause the frame L to drop in the box and display its card through the opening made in the outer side thereof, and the name or number of the door or place with which the apparatus is in circuit thus shows through the said opening.

The circuit is as follows: from the binding-post  $a$ , through the spring G, to the armature, and thence through the contact-spring D and screw E to the coil  $e$ , and from thence through the wire  $v$  to the binding-post  $b$ .

If desired, the bell may be discarded and only the frame carrying the numbered lettered card used.

Having thus described my invention, I claim—

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1. In an electric-bell apparatus, the combination of a case inclosing and carrying the same and having an opening in one of its sides, the armature having the projecting stud, the  
5 pivoted latch engaging with the said stud, and the vertically-movable frame carrying the card, the said frame having the stud P for engaging with the latch, whereby when the armature is attracted the latch is moved out of engagement  
10 with the stud P and the frame carrying the card is released, for the purpose set forth, substantially as described.

2. The combination, in an electric-bell apparatus, of the inclosing case, having an opening in one of its sides, with the armature having the projecting stud *c*, the depending pivoted latch K, engaging the stud *c* and having the

shoulder *k*, and the vertically-movable frame or annunciator having the stud P, to engage the shoulder of the pivoted latch when the annunciator or frame is raised, thereby supporting the same when elevated, whereby when the armature is attracted the latch is moved out of engagement with the stud P, and the frame or annunciator is released and permitted to descend, substantially as described. 20 25

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

CHAS. HENZEL.

Witnesses:

WILLIAM WOOD,  
GEORGE LANDER.