

(No Model.)

S. ILIYNE-BERLINE.  
ELECTRIC SIGNALING APPARATUS.

No. 362,216.

Patented May 3, 1887.

Fig. 2

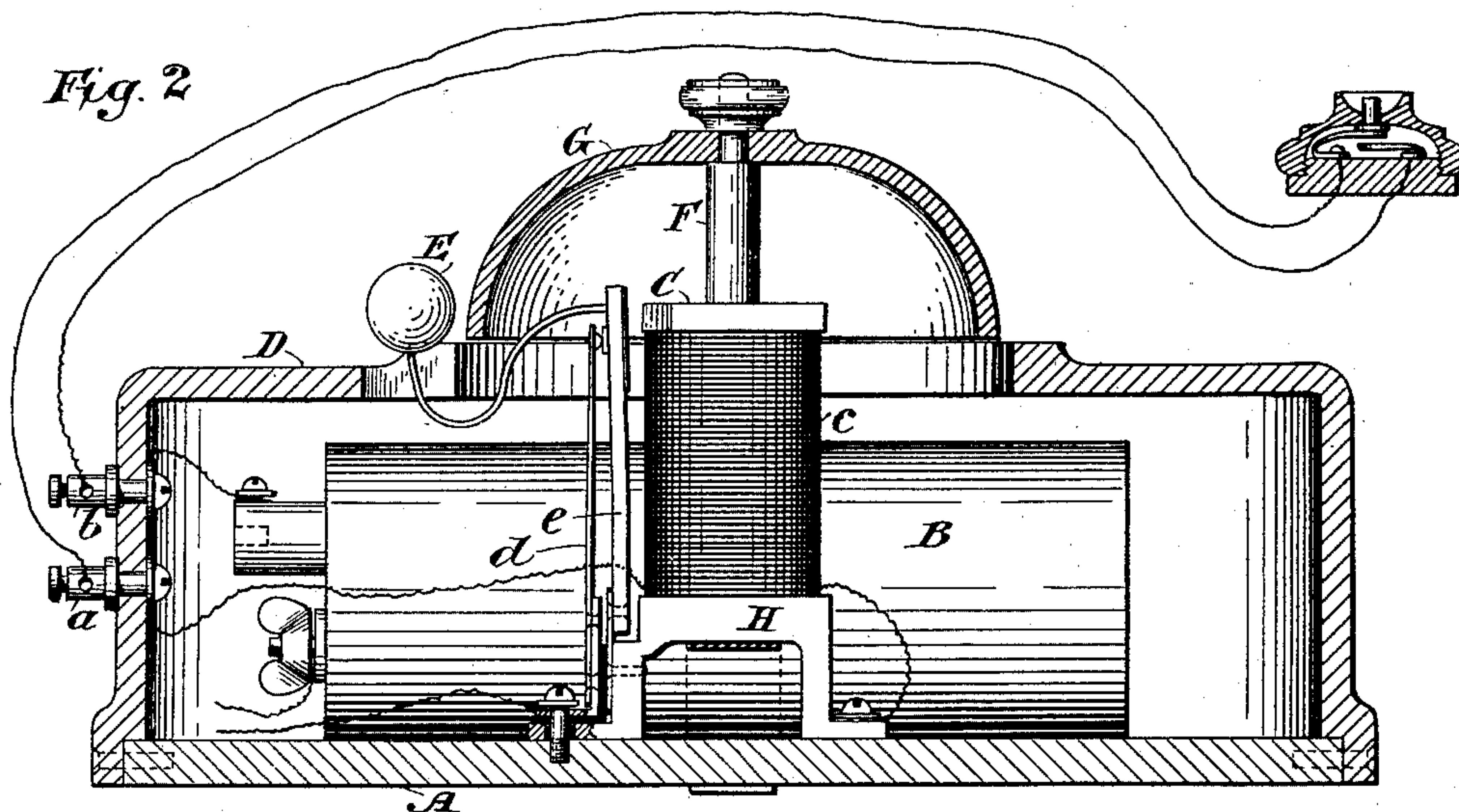
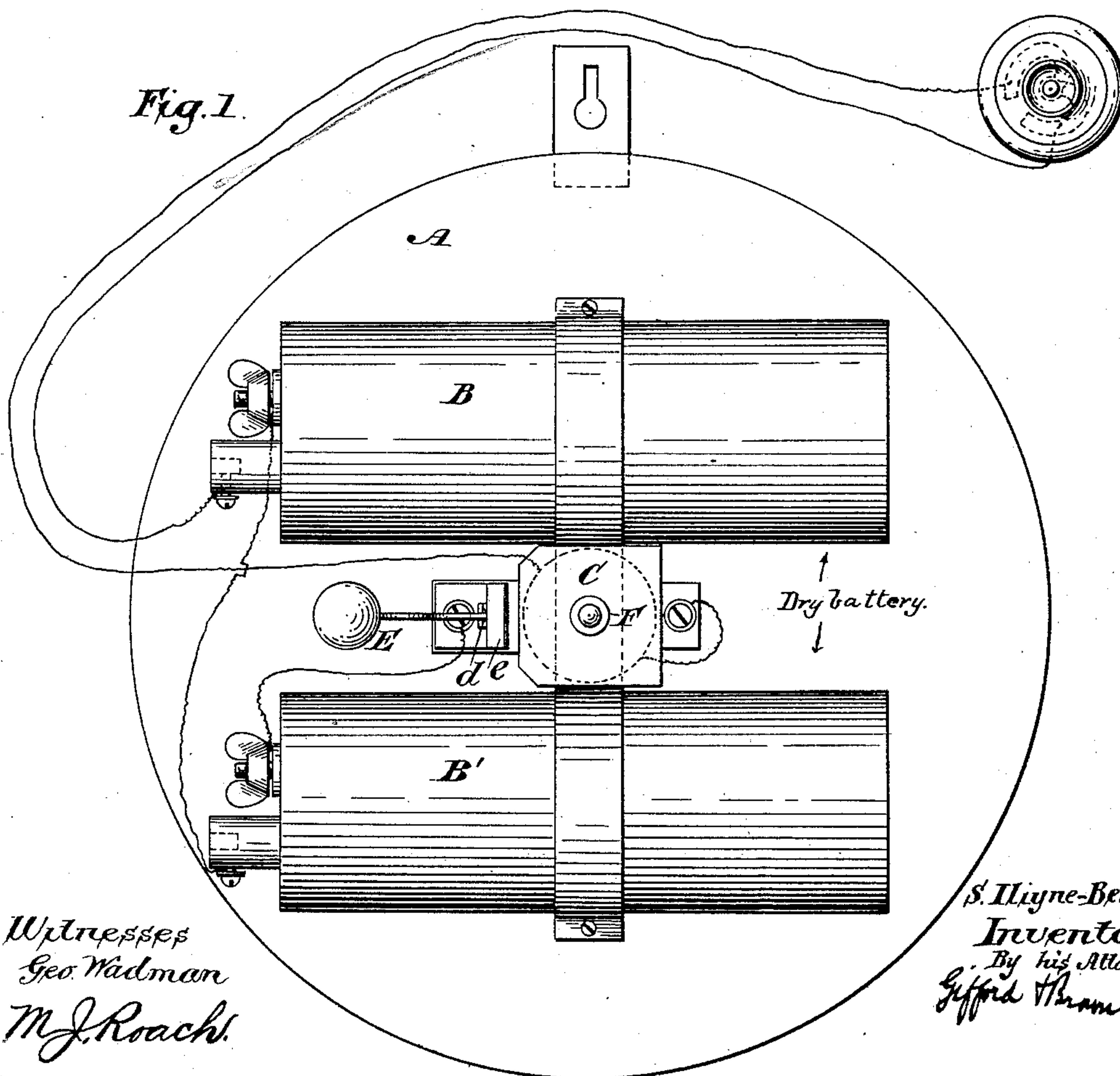


Fig. 1



Witnesses  
Geo. Wadman  
M. J. Roach.

S. Ilyne-Berline  
Inventor  
By his Attorneys  
Gifford Thorne



# UNITED STATES PATENT OFFICE.

SALOMON ILIYNE-BERLINE, OF PARIS, FRANCE, ASSIGNOR TO LEO DE COLANGE, OF NEW YORK, N. Y.

## ELECTRIC SIGNALING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 362,216, dated May 3, 1887.

Application filed November 16, 1886. Serial No. 219,077. (No model.) Patented in France April 17, 1886, No. 162,869.

*To all whom it may concern:*

Be it known that I, SALOMON ILIYNE-BERLINE, of Paris, in the Republic of France, have invented a certain new and useful Improvement in Electric Signaling Apparatus, of which the following is a specification.

The objects of my improvement are to simplify and diminish the parts usually employed in this kind of apparatus, thereby materially reducing the price, and to unite these simplified and diminished parts with the elements of a dry battery in a small case or box, easily put in place by any one however inexperienced.

The drawings herewith represent the electric signaling apparatus, and are referred to in the following explanations.

Figure 1 shows a front view of the electric signaling apparatus with the overlying bell and box removed. Fig. 2 shows the vertical section through the axis.

On a small board, A, are fixed two elements, B and B', of any dry battery and a simplified electro-magnet, C. The position of the elements of the battery is absolutely optional. The one I have drawn is the most suitable to the round form given by preference to the box or case D, which incloses the whole system, and of which the center has a circular opening to admit the hammer or clapper E and of the rod F, which sustains the bell G. It will be seen that the mouth of the bell is nearly the same diameter as the opening in the box or case. This bell closes the box, leaving, however, between the two the space necessary to allow of vibration. The sounds made by the bell are made louder by the box, which acts as a sounding-board. The box D is connected with the small board or bottom A by means of screws or any other suitable fastening, and may be more or less ornamented by moldings. At its upper part are two binding-screws, a and

b, to which are attached the wires running from any call button or stud, put in any convenient or suitable place, and intended to close the circuit by being pressed upon.

The small board A has a screw-eye or any other suitable ring or loop to permit its being hung up against a wall or other vertical surface. This small board can be placed on a horizontal (or level) surface equally well.

Both the board and the box, represented as of wood in my drawings, can be made of metal, stamped, spun, or hammered, provided the insulators be placed in the right positions.

The economy of this electric signaling apparatus consists, also, in the manner of mounting the electro-magnet, made of a single coil, c, of an armature, e, and of a contact-spring, d. These three pieces are fastened to a support, H, which is screwed to the board A between the two elements B and B'. The armature receives the clapper, and the core the rod on which is mounted the bell. The rod F therefore constitutes in effect a prolonged portion of the core of the electro-magnet.

One of the poles of the battery is fastened to the contact-spring, and the other pole is fastened to the electro-magnet.

What I claim as my invention and as my sole and exclusive property is—

The combination, with a box or case provided with an opening, of a battery arranged therein, a vertically-arranged electro-magnet having a core provided with a prolonged portion, an armature, a bell-clapper operated by said armature, and a bell mounted on said prolonged portion of the core, substantially as specified.

SALOMON ILIYNE-BERLINE.

Witnesses:

HENRY FRANCIS HARDING,  
JOS. B. BOURNE.