

No. 881,264.

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E. SCHERMERHORN.
ELECTRIC SIGNAL DEVICE.
APPLICATION FILED SEPT. 1, 1906.

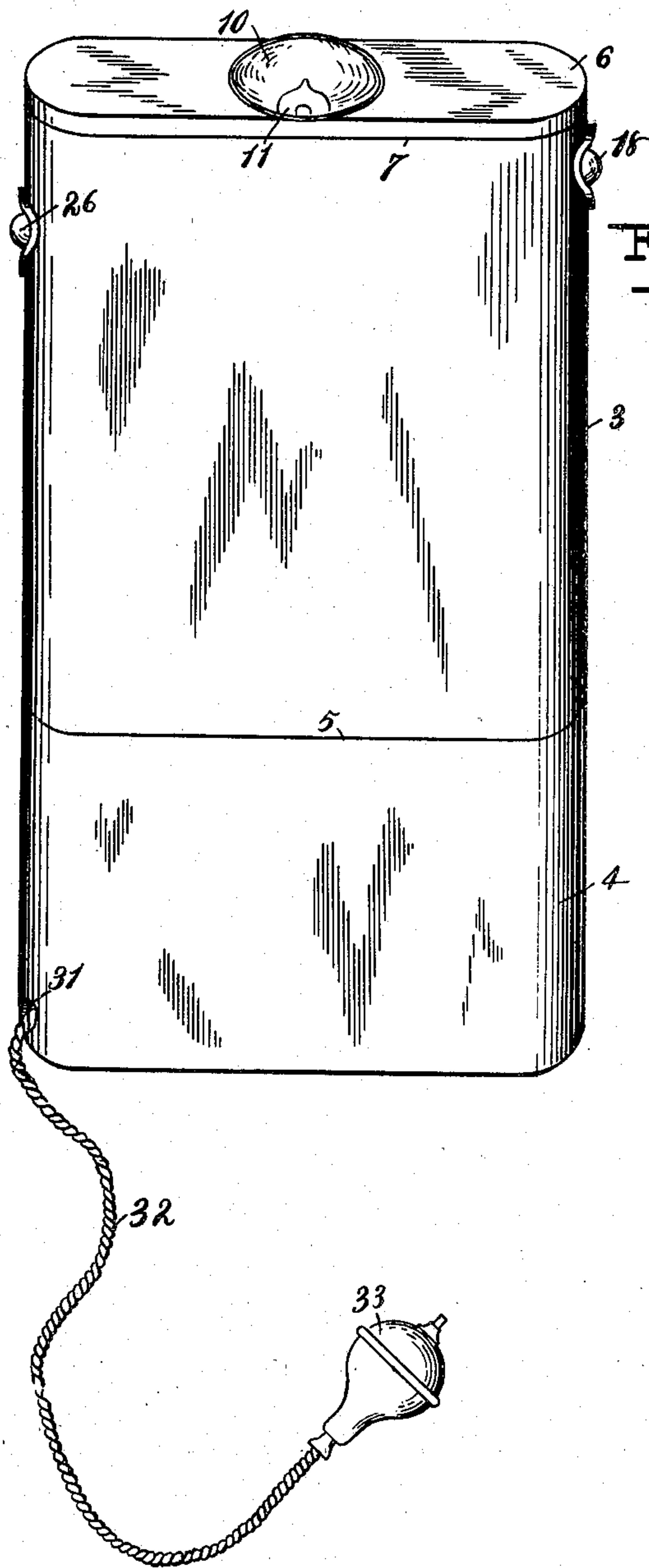


Fig. 1.

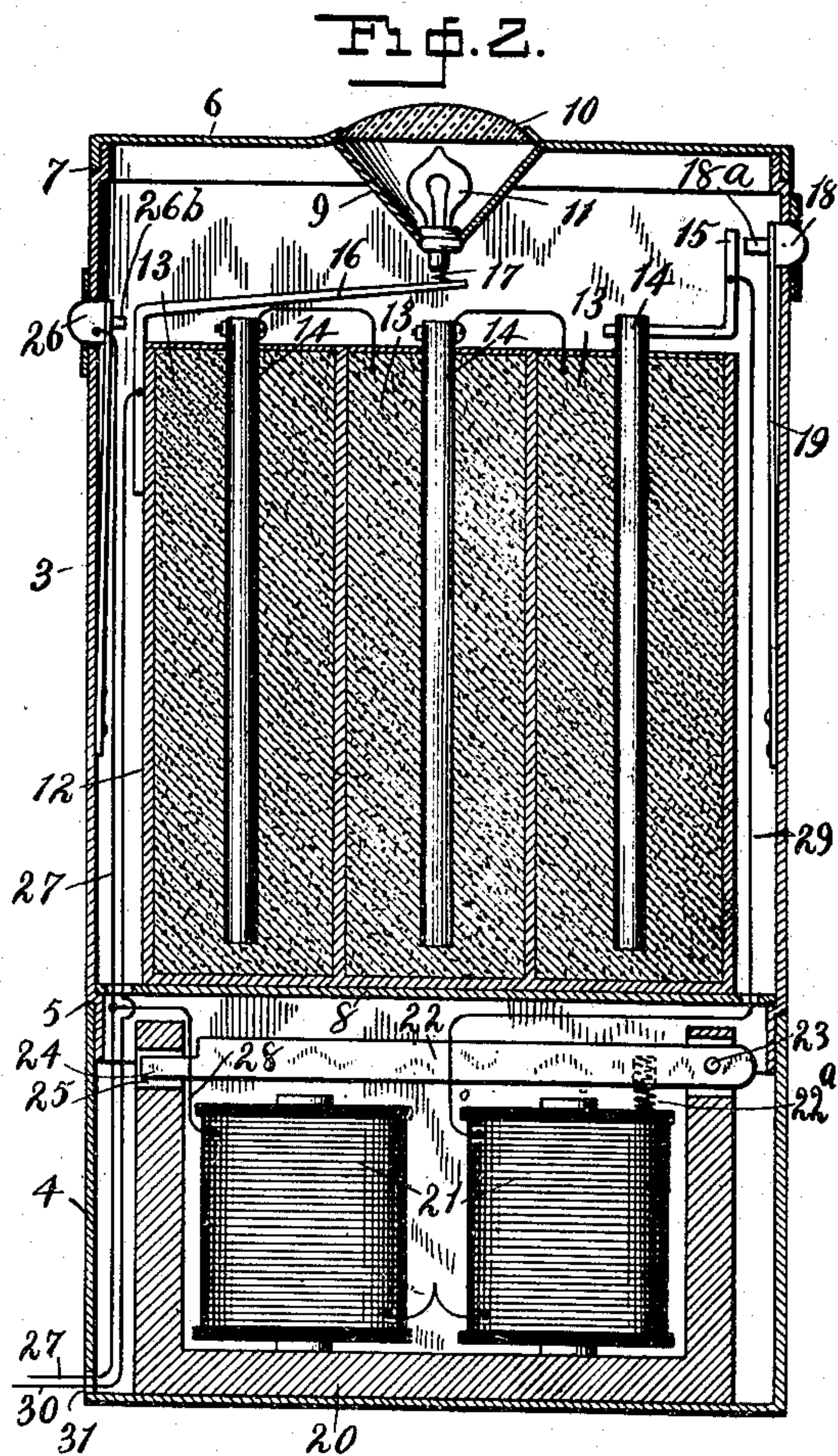


Fig. 2.

WITNESSES:

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ELECTRIC SIGNAL DEVICE.

No. 881,264.

Specification of Letters Patent.

Patented March 10, 1908.

Application filed September 1, 1906. Serial No. 332,894.

To all whom it may concern:

Be it known that I, ELIAS SCHERMERHORN, a citizen of the United States, residing at Amsterdam, in the county of Montgomery and State of New York, have invented certain new and useful Improvements in Electric Signal Devices, of which the following is a specification.

My invention relates to electrical apparatus and refers especially to miniature devices designed to both amuse and instruct.

The chief objects of my invention are to provide an electric battery of light weight and suitable design adapted to be carried in the pocket; to furnish means for controlling a flash light connected to said battery; to combine therewith an electric sounder which will afford means for instruction in the art of telegraphy; to furnish a pocket battery and sounder with concealed means for operating the same; and to provide a device of the character indicated having means whereby the flashlight and sounding device may be operated separately or simultaneously.

I accomplish the above objects by means of the appliance illustrated in the accompanying drawing which forms a part of this specification, in which,

Figure 1 is a perspective view of my improved combined battery flash light and telegraph sounder with conducting cord and push button attached, and Fig. 2 is a vertical section in a plane passing through the major transverse axis of the casing.

Referring to the drawing the numeral 3 indicates a casing of any suitable material, preferably metal, of a flattened tubular form of a size practically adapted to be carried in the pocket. Said casing is open at either end, the lower opening being closed by means of a cup 4 of considerable depth, which engages shoulders 5 formed near the lower margin of the casing 3. The upper end of the casing is provided with a cover 6 which engages shoulders 7 formed near the upper margin of the casing. A partition or shelf 8 rests upon the inner ledge formed by the shoulder 5 and serves to separate the interior of the compartment formed by the junction of the casing 3 and cup 4 into two chambers. To the inside of the top of the cover 6 is secured a conical reflector 9 which projects downwardly into the upper chamber, and is closed above by a lens of glass which is set in a central opening in the cover. Within the

cavity of the said reflector is fixed an incandescent light or lamp 11 having electric connections, hereinafter described, with a battery 13 consisting of three cells of the dry variety which are supported upon the partition 8, being of such a transverse diameter as to be securely held between the side walls of the casing 3 but leaving a slight space at the edges for the passage of the electric conductors. Each cell is provided with a central carbon 14. To one of said carbons is fixed a bent arm 15 and the opposite pole bears a spring arm 16 with which the electric lamp 11 makes contact by means of the connected wire 17. A push button 18 carried on a spring 19 secured to the inside of the compartment, projects through an opening in the edge of the casing, its point, 18^a, being adapted to make contact with the arm 15 when the said button is pressed. A frame 20, located in the lower compartment formed by the cup 4, carries an electro-magnet 21 which, when energized, acts upon an armature 22, in the form of a lever which is pivoted at one end 23, to the frame 20, and the opposite end 24, is reduced in size and penetrates an opening 25 in the frame. The sides of said opening act as stops to limit the movement of the armature. The latter is held in retracted position when deenergized, by a spring 22^a. A contact button 26 mounted upon a spring 26^a, projects through an opening in the edge of the casing 3, opposite to the button 18, its point 26^b, making contact with the bar 16 when the button is pushed. The wires 27, 28, connect the push button 26 with one pole of the electro-magnet 21; the other pole being in electric connection with the carbon of the battery by means of the wire 29. The lamp 11 is in connection with one pole of the battery by means of the wire 17 and the bar 16, as hereinbefore described, while the circuit is completed to the push button 18 through the metallic cover 6. Thus, a contact made by pressing the button 18 will cause the lamp to flash, the light continuing as long as the circuit is kept closed. When it is desired to operate the sounder the button 26 is pressed and the electro-magnet, being energized, will act upon the armature 22, the sound being produced by the impact of the extremity 24 against the sides of the orifice 25.

In order to enable the sounder to be operated when the device is hidden within the pocket, I provide an additional conductor

30 which is connected to the pole 16 of the battery. The wires 27 and 30 are insulated and pass out of the cup through an opening 31. For convenience the wires are then
5 formed into a cord 32 which is connected with a push button 33 of any ordinary construction. If desired the cord 32 can be concealed about the person and the button carried in a pocket where contact may be
10 made by the hand placed therein.

It is obvious that many changes may be made in the devices of my invention as herein described without departing from the spirit and scope thereof, and I do not, therefore, wish to be limited to the precise construction herein set forth.
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Having thus described my invention, what I claim as new and desire to secure by Letters Patent is,

20 1. A device for the purpose specified, comprising a casing open at opposite ends, closures for said open ends, a lamp mounted in one of said closures, an electro-magnet mounted in the other closure, a partition dividing the interior of the casing into two
25 compartments, a battery arranged in one of said compartments, a plurality of circuit closers attached to the casing and adapted to make immediate contact with the opposite pole pieces of the battery, circuit wires
30 connecting one circuit closer with said magnet, and the other circuit closer with the said lamp, and connections between the battery and the lamp and magnet.

35 2. A device for the purpose specified, comprising a casing open at opposite ends, closures for said ends, said closures consisting of a cap for one end having a lamp mounted

therein, and a cup engaging the other end, and containing an electro-magnet, a partition dividing the interior of the casing into
40 two compartments, a battery arranged in one of said compartments, a plurality of circuit closers adapted to make immediate contact with opposite poles of said battery, connection between one circuit closer and the
45 said lamp, circuit wires connecting the other circuit closers with the magnet, and electrical conductors connecting said battery with the lamp and the electro-magnet. 50

3. A device for the purpose specified comprising a casing open at opposite ends, removable closures for the ends, said closures consisting of a cap for one end and a cup engaging the other end, a lamp mounted in
55 said cap, an electro-magnet mounted upon a frame arranged in said cup, a spring-held armature pivoted to the frame at one end and engaging an aperture in said frame by its free end, a partition dividing the interior
60 of the casing into two compartments, a battery arranged in one of said compartments, a plurality of circuit closers adapted to complete connections with opposite poles of said battery, connection between one circuit
65 closer and the said lamp, wires connecting the remaining circuit closers with the said magnet, and electrical conductors connecting said battery with the lamp and the electro-magnet. 70

In testimony whereof I affix my signature in presence of two witnesses.

ELIAS SCHERMERHORN.

Witnesses:

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W. ARTHUR KLINE.