Dec. 21, 1926. 1,611,749

H. HIMMELMAN

ELECTRIC ALARM

Original Filed April 17, 1924

Fig. 2.

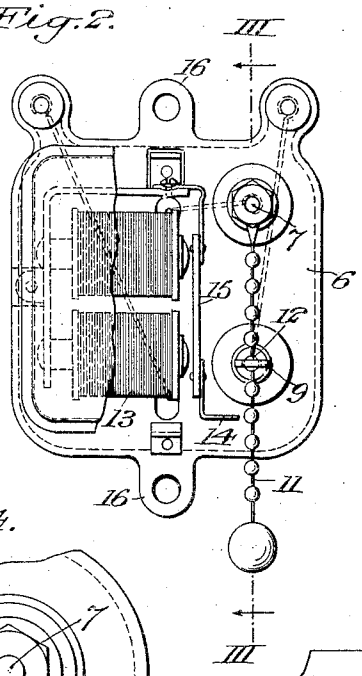


Fig. 3.

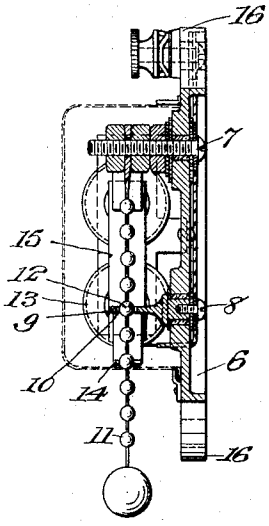


Fig. 4.

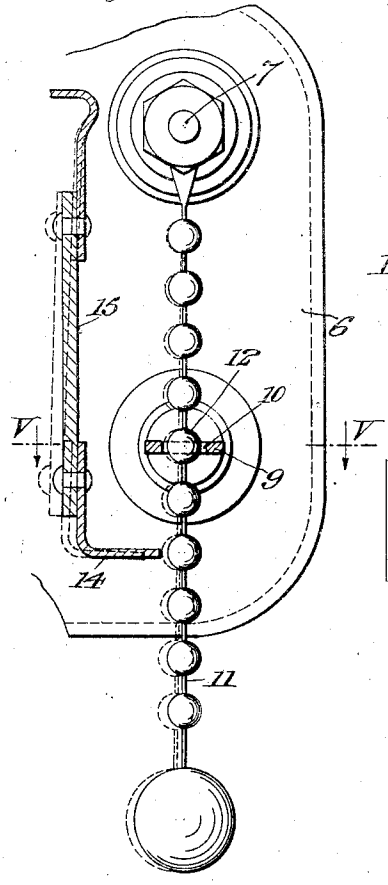


Fig. 5.

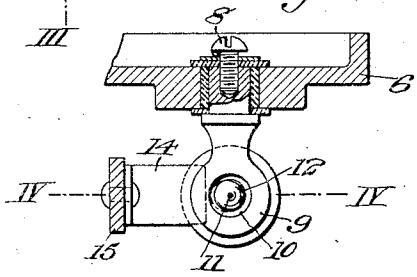
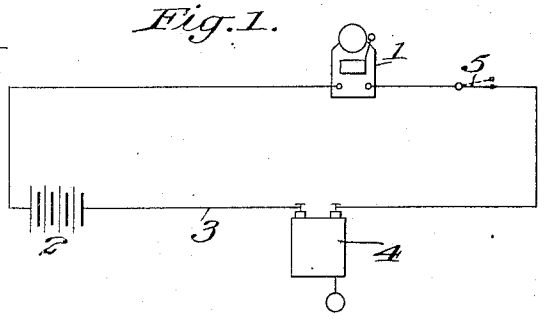


Fig. 1.



INVENTOR

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HIS ATTORNEYS

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UNITED STATES PATENT OFFICE.

HENRY HIMMELMAN, OF BOONTON, NEW JERSEY.

ELECTRIC ALARM.

Application filed April 17, 1924, Serial No. 707,151. Renewed September 25, 1926.

My invention relates to electric alarms having an alarm operating device including a normally inert pendulous element located in the normally open electric alarm circuit, which pendulous element is movable, when subjected to a sufficient jarring action, to close and open the electric alarm circuit for operating the alarm; means operated by the closing and opening of the electric alarm circuit, being provided for keeping the pendulous element moving until a manually operated switch is moved to open the circuit.

The object of my invention is to provide an apparatus of the above character in which the alarm itself may be placed in any desired location and the alarm operating device may be placed where it would be subjected to jars sufficient to put it in operation. For instance, the alarm operating device may be placed on the inside of the locked door of a house, closet, safe, etc. so that any blows struck against the door in the unlawful attempt to open the same would produce such a jarring action to put the pendulous element of the alarm operating device in motion; thereby operating the alarm by the closing and opening of the circuit through said alarm.

A practical embodiment of my invention is represented in the accompanying drawings, in which.

Fig. 1 represents a diagrammatic view of an electric alarm and circuit with my improved alarm operating device incorporated in the circuit.

Fig. 2 represents a front view of the alarm operating device, a portion of the housing being broken away, to more clearly illustrate the parts beneath the same.

Fig. 3 represents a section taken in the plane of the line III—III of Fig. 2, looking in the direction of the arrows.

Fig. 4 represents an enlarged detail section taken in the plane of the line IV—IV of Fig. 5, looking in the direction of the arrows.

Fig. 5 represents a detail section taken in the plane of the line V—V of Fig. 4, looking in the direction of the arrows.

In the diagram, represented in Fig. 1, the electric alarm is denoted by 1, the battery by 2, the circuit wires by 3 and my improved alarm operating device by 4. It is to be understood that the alarm 1 may be of any well known or approved construction and may be placed in any desired location. A manually operated switch 5 is provided in the electric circuit, which switch is closed when the alarm is placed under control of the alarm operating device.

Proceeding to describe my improved alarm operating device, the base 6 is provided with upper and lower binding posts 7 and 8. The lower binding post 8 is provided with a contact member 9 having an eye 10 therein.

A normally inert pendulous element, in the present instance, a weighted chain 11 is suspended from the upper binding post 7, which chain extends downwardly through the eye 10 of the lower binding post contact member 9, one of the balls 12 of which chain is located within the eye and normally spaced from the walls of the eye so that the electric circuit, through the alarm 1, will not be completed until the ball 12, which forms the contact member of the pendulous element is moved into engagement with the walls of the eye 10, of the contact member 9. This normally inert pendulous element is so arranged that, when subjected to a jarring action, it will swing sufficiently to bring its contact member 12 into and out of engagement with the contact member 9, to close and open the electric circuit and thus give the alarm.

To keep the alarm going until the manually operated switch 5 is opened, I provide an electromagnet 13 which is alternately energized and deenergized by the closing and opening of the circuit, thus causing the laterally extended arm 14 of the armature 15 of the electromagnet to vibrate sufficiently, to repeatedly strike the pendulous element 11, to keep it swinging indefinitely.

The base 6 of the alarm operating device 4 may be provided with suitable lugs 16 for the attachment of the device to the desired support, as, for instance, the inside of a locked door.

It is evident that various changes may be resorted to in the construction, form and arrangement of the several parts without departing from the spirit and scope of my invention; hence, I do not wish to be limited to the particular embodiment herein shown and described, but—

What I claim is:—

1. A normally open electric alarm circuit including a normally inert pendulous element, movable, when subjected to a jarring action, to close and open the circuit, to

give the alarm, and an electromagnet alternately energized and deenergized by the closing and opening of the circuit, the armature of the electromagnet being arranged in position to repeatedly strike said pendulous element, to keep it moving.

2. A normally open electric alarm circuit including upper and lower binding posts, a weighted chain loosely suspended from the upper binding post, movable, when subjected to a jarring action, into and out of contact with the lower binding post, to close and open the circuit for giving the alarm, and an electromagnet alternately energized and deenergized by the closing and opening of the circuit, the armature of the electromagnet being arranged in position to repeatedly strike said chain, to keep it moving.

3. A normally open electric alarm circuit including upper and lower binding posts, the lower binding post being provided with a contact member having an eye, a weighted chain loosely suspended from the upper binding post and extending through said eye, movable, when subjected to a jarring action, into and out of contact with the walls of said eye, to close and open the circuit, to give the alarm, and an electromagnet alternately energized and deenergized by the closing and opening of the circuit, the armature of the electromagnet being arranged in position to repeatedly strike said chain, to keep it moving.

In testimony, that I claim the foregoing as my invention, I have signed my name this 14th day of April, 1924.

HENRY HIMMELMAN.