No. 723,478. PATENTED MAR. 24, 1903.

G. W. MILLS.

BURGLAR ALARM.

APPLICATION FILED APR. 15, 1902.

NO MODEL.

Fig. 1.

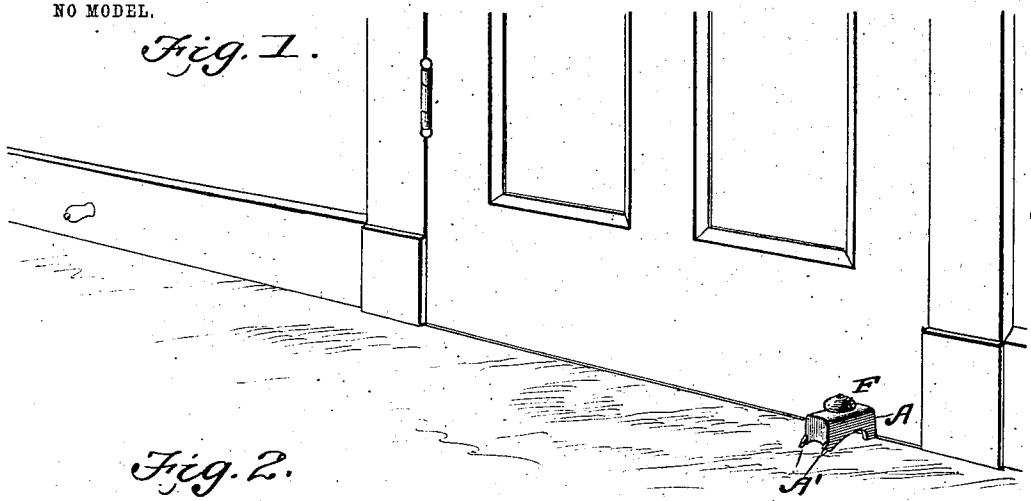
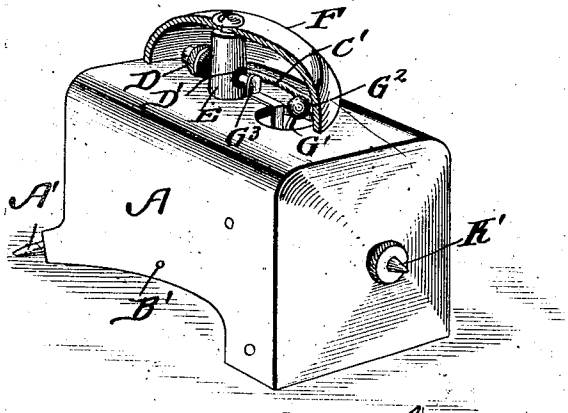


Fig. 2.



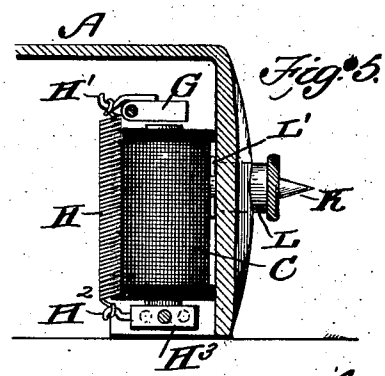


Fig. 5.

Fig. 3.

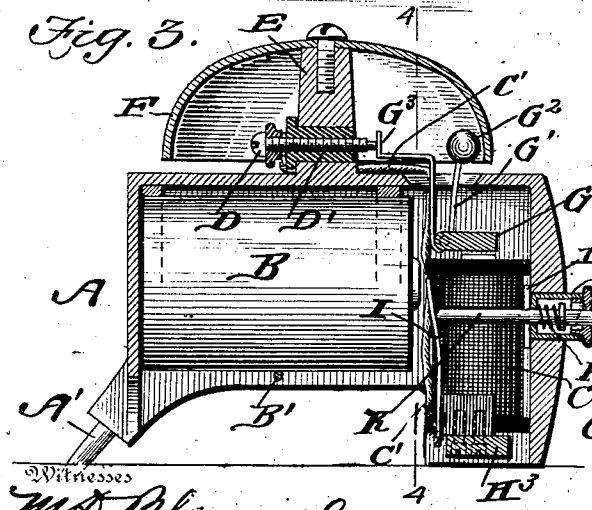
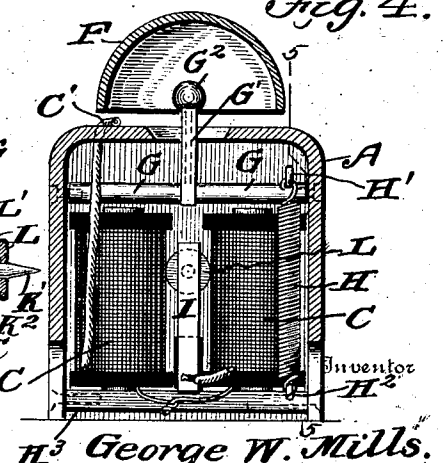


Fig. 4.



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UNITED STATES PATENT OFFICE.

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BURGLAR-ALARM.

SPECIFICATION forming part of Letters Patent No. 723,478, dated March 24, 1903.

Application filed April 15, 1902. Serial No. 103,068. (No model.)

To all whom it may concern:

Be it known that I, GEORGE W. MILLS, a citizen of the United States, residing at Elizabeth, in the county of Union and State of New Jersey, have invented a new and useful Combined Electrical Door-Stop and Alarm, of which the following is a specification.

This invention relates generally to door-stops and alarms, and more particularly to a door-stop provided with an electrical alarm attachment.

The object of the invention is to provide an exceedingly cheap, simple, and compact device which can be easily carried in a grip or valise and which can be arranged adjacent to a door when closed or partially open, so that in case any one should attempt to open the door the pressure of the door upon the stop will serve to close the circuit and sound the bell.

With these objects in view the invention consists mainly in the employment of a housing or casting provided with means for engagement with the floor, said housing or casting carrying a dry battery and an electromagnetic bell, the circuit being normally open and a circuit-closing rod projecting through the front face of the housing or casting adapted for engagement with the door.

The invention consists also in certain details of construction and novelties of combination, all of which will be fully described hereinafter and pointed out in the claims.

In the drawings forming part of this specification, Figure 1 is a view illustrating the practical application of my invention. Fig. 2 is a perspective view of the device, the bell being shown partly broken away to disclose the sounding mechanism. Fig. 3 is a vertical longitudinal sectional view, the battery and electromagnets being shown in elevation. Fig. 4 is a section on the line 4 4 of Fig. 3. Fig. 5 is a detail section on the line 5 5 of Fig. 4.

In carrying out my invention I employ a housing or casting A, which is closed at the top and open at the bottom, said housing or casting being provided with rearwardly-extending prongs A′, which are adapted to be forced into engagement with the carpet or floor adjacent to the door, as most clearly shown in Fig. 1. A dry battery B is supported within the housing or casting, said battery being held in place by means of a suitable set-screw B′, and in practice I prefer to arrange this battery in horizontal position, as indicated, and adjacent thereto are arranged the electromagnets C, said electromagnets being arranged in vertical position, as shown, said magnets being connected to each other in the usual manner, and from one of the magnets leads the wire C′, which is connected to the adjustable binding-post D, which is arranged in a short standard E, projecting upwardly from the housing or casting and carrying the bell F at its upper end, the post D being located in the insulating-sleeve D′, as clearly shown.

G indicates the armature, which is pivoted within the housing or casting directly above the electromagnets, and connected to the said armature is the elbow-lever G′, carrying the clapper G^2 at one end, which is adapted to engage the bell, the opposite end of the elbow-lever being shaped to provide a contact-point G^3, adapted to engage the forward end of the adjustable binding-post D. The armature is normally held away from the magnets by means of the spring H, which is connected to the finger H′, projecting from the armature, and also to the finger H^2, extending from the base-plate H^3. A contact-plate I is arranged centrally between the magnets and connected at its lower end to one terminal of the wire, the upper end of said contact-plate being free and resting adjacent to the electrode of the battery.

A rod K passing through the front side of the housing or casting is pointed at its forward end, as shown at K′, for the purpose of engaging the door when it is attempted to open said door, and by having the said end pointed all danger of the door sliding upon the end without operating the rod is entirely avoided, and when pressure is applied to the forward end of the rod said rod is forced inwardly, pushing against the contact-plate I, bringing the said plate into contact with the electrode of the battery, closing the circuit and sounding the bell, it being understood that the moment the circuit is closed the armature is attracted, operating the elbow-lever and sounding the bell. In practice I prefer to arrange the rod K within a sleeve or thim-

ble L, which is arranged in the forward side of the housing or casting; but it will of course be understood that this sleeve or thimble is not absolutely necessary, and in the present instance I employ it mainly for the purpose of carrying a spring K^2 to prevent the rod being projected too far forwardly. I also employ a locking-pin, as illustrated at L'.

A device such as I have described can be made exceedingly small, and owing to its compact size and its lightness of weight it can be readily carried in a valise, thereby enabling the traveler to always carry a safe and efficient door-stop and alarm, which can be used without disfiguring or injuring the door or woodwork of a room.

A device such as herein shown and described requires no attention whatever and is therefore superior to the mechanical appliances now in common use, which require constant winding and attention to see that they are in proper working order.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent of the United States, is—

1. A combined door-stop and alarm, comprising a housing or casting provided with means for engaging the floor, and supporting a battery, electromagnet, and bell, and means for closing the circuit and sounding the bell, substantially as described.

2. A combined door-stop and alarm comprising a housing or casting provided with prongs at its rear end for engagement with the floor, a battery and electromagnet arranged within the housing or casting, a bell arranged upon the said housing or casting, and a rod projecting through the forward side of the housing or casting and adapted for engagement with the door, whereby the circuit is closed and the bell sounded, as specified.

3. A combined door-stop and alarm consisting of a housing or casting provided with prongs at its rear end for engagement with the floor, a dry battery and electromagnet arranged within the housing or casting, and spring-actuated rod projected through the forward side of the casting and adapted to contact with the door for the purpose of closing the circuit, substantially as specified.

4. The combination with a housing or casting provided with means for engaging the floor, of a battery and electromagnetic bell carried by the said housing or casting, and the movable rod adapted for contact with the door, and whereby the circuit is closed and the bell sounded, substantially as specified.

GEORGE W. MILLS.

Witnesses:
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