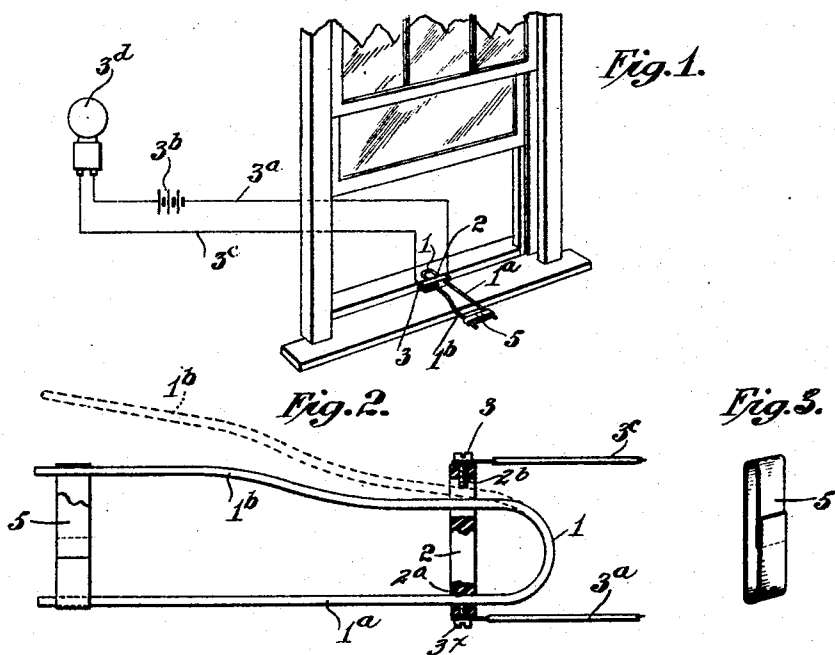


J. BERG.
 SIGNAL CONTROLLING DEVICE.
 APPLICATION FILED APR. 1, 1915.

1,201,241.

Patented Oct. 17, 1916.



Attest:
Comstock

Inventor:
John Berg
 by *Angus Kennedy Campbell* Attys.

UNITED STATES PATENT OFFICE.

JOHN BERG, OF NEW YORK, N. Y.

SIGNAL-CONTROLLING DEVICE.

1,201,241.

Specification of Letters Patent.

Patented Oct. 17, 1916.

Application filed April 1, 1915. Serial No. 18,520.

To all whom it may concern:

Be it known that I, JOHN BERG, a citizen of the United States, residing at New York, in the county of Bronx and State of New York, have invented certain new and useful Improvements in Signal-Controlling Devices, of which the following is a specification, reference being had therein to the accompanying drawing.

My invention relates to alarm systems, and contemplates a controlling device therefor which will be subject to the action of rain, fire and the like, so that an alarm will be sounded in any of such contingencies.

One of the principal objects of my invention is to provide a controlling device particularly susceptible to the action of rain, so that it may serve as a rain annunciator, my general idea being to provide a device that may be placed outside of an open window of a dwelling house at night to sound an alarm immediately upon its beginning to rain, and thus to arouse or notify the occupant promptly so that the window may be closed before any damage is done to the interior furnishings or decorations. It will be understood, however, that the above mentioned use is only one of a number to which my invention may be put, as it may be advantageously employed in many other connections, such, for instance, as burglar or fire alarm systems.

A further object of my invention is to provide a controlling device of the character stated which will be simple in construction, compact in form, and efficient in operation, and which may be manufactured inexpensively and sold as an article of commerce at small cost.

The manner in which the above and other objects are carried into effect will appear in the more detailed description to follow and finally be pointed out in the claims.

In the accompanying drawing, I have shown the preferred embodiment of my invention and it will be obvious that many changes and alterations may be made therein and in its mode of application which will be still comprised within the spirit of the invention. Generally speaking, I desire it to be understood that I do not limit myself to any specific form or embodiment except in so far as such limitations are specified in the claims.

Referring to the drawing, Figure 1 is a perspective view showing my improved de-

vice in operation and connected to an electrically operated alarm; Fig. 2 is an enlarged view of the device in side elevation; and Fig. 3 is a detail-view.

Referring to the drawings, my improved device consists of a U-shaped piece of wire 1 which is carried by a transverse supporting bar 2, formed at one end with a hole or aperture 2^a through which the lower arm 1^a of the wire passes, and formed at its opposite end with an elongated slot or opening 2^b through which the upper arm 1^b of the wire passes, and in which said arm is movable freely in relation to the supporting bar. The supporting bar 2 is also provided at its opposite ends with contact screws 3 and 3*, the former being connected by a conductor 3^c to one pole of an electric battery or generator 3^b, which has its other pole connected by a conductor 3^a to the other contact screw 3*, it being noted that an alarm bell or signal 3^d is included in the electrical connections. It is pointed out that the screw 3 is located slightly above the upper arm 1^b of the spring wire so as normally to stand out of contact therewith, while the lower screw 3* remains in permanent connection with the lower arm 1^a, and serves not only to keep the wire in the electrical circuit, but also to hold or clamp it in fixed position in the supporting bar 2. The construction thus described is very advantageous as it enables the parts to be manufactured at little cost and permits their quick and easy assembly or disassembly, it being noted that the spring wire may be slid in or out of place or to different positions with reference to the supporting bar by simply loosening the lower screw 3*. It will be understood, of course, that the holding function of the screw 3* might be performed by some other embodiment than that particularly shown. The tendency of the arm 1^b, due to the spring-like character of the wire 1, is to move outwardly away from the companion arm 1^a so as to make contact with the binding post 3 and thus to close the electric circuit. This tendency, however, is resisted and controlled by a strip 5, which passes around the outer ends of the two arms and holds them in proper spaced relation. The strip 5 is so constituted that under any of the conditions above mentioned it will yield or tear apart to allow the upper arm 1^b to make contact with the binding post 3. Preferably, the strip 5 is

made of tissue paper or plain perforated paper, as these have been found in practice to answer the requirements to a very satisfactory degree.

5 The operation of the parts will now be clear: When used as a rain annunciator, the device is placed outside of an open window, as shown in Fig. 1, so that it will be exposed to the action of the rain. Just as soon as a few drops of rain strike the paper strip 5, its tensile strength will be diminished and the upper arm 1^b, due to its spring pressure, will tear the strip apart and make contact with the binding post 3, as shown 10 by dotted lines in Fig. 2, thus closing the electric circuit and effecting the ringing of the bell 3^a. It will be understood, of course, that the supporting bar 2 should be of non-conducting material so that when the arm 20 1^b is out of contact with the binding post 3, the electric circuit may remain open.

In the form above described it will be noted that the outward movement of the arm 1^b, is relied upon to control an electrically operated alarm, but it will be obvious that the movement of the arm could be made to control a mechanically operated alarm in the same way. Also, it will be obvious that instead of having a complete 30 equipment for each controlling device as shown, a single equipment may be employed for any number thereof, such as is used in all fire alarm systems throughout buildings, apartment houses, etc. These applications 35 and adaptations of my improved device will readily suggest themselves to those skilled in the art without departure from the scope of the invention.

40 Having thus described my invention, its construction and mode of operation, what I

claim and desire to secure by Letters Patent of the United States is, as follows:—

1. A signal controlling device, consisting of a single piece of spring wire bent into substantially U-shaped form, a transverse 45 supporting bar therefor formed at one end with a hole or aperture wherein one arm of the wire is fixedly located and at its opposite end with an elongated slot wherein the other arm of the wire is movably located, 50 said supporting bar being also provided at its opposite ends with electrical contacts, one of which is in permanent connection with the fixed arm of the spring wire, and a member connecting the free ends of the 55 arms and holding the movable arm out of engagement with the other contact, in the manner and for the purpose described.

2. A signal controlling device, consisting of a single piece of spring wire bent into 60 substantially U-shaped form, a transverse supporting bar therefor formed at one end with a hole or aperture wherein one arm of the wire is fixedly located and at its opposite end with an elongated slot wherein the 65 other arm of the wire is movably located, said supporting bar being also provided at its opposite ends with electrical contacts, one of which is in the form of a screw or holding member connected permanently to the 70 fixed arm and serving to hold or bind it in position in the supporting bar, and a member connecting the free ends of the arms and serving to hold the movable arm out of engagement with the other electrical contact, 75 in the manner and for the purpose described.

In testimony whereof, I have affixed my signature.

JOHN BERG.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."