Aug. 29, 1939.

J. BOONE

2,171,329

RAIN DETECTING MEANS

Filed Feb. 7, 1938

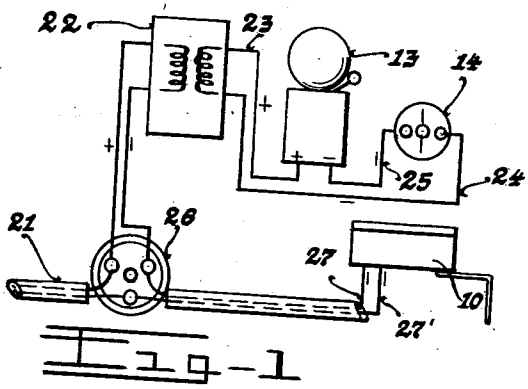


Fig-1

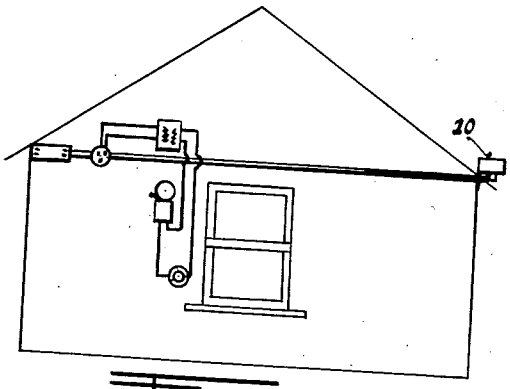


Fig-2

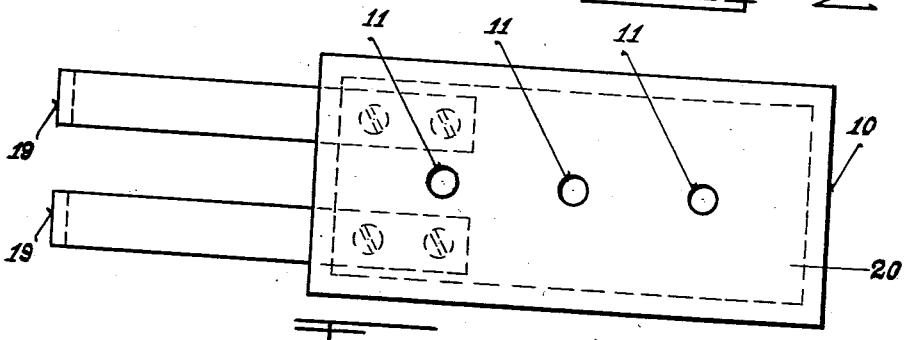


Fig-3

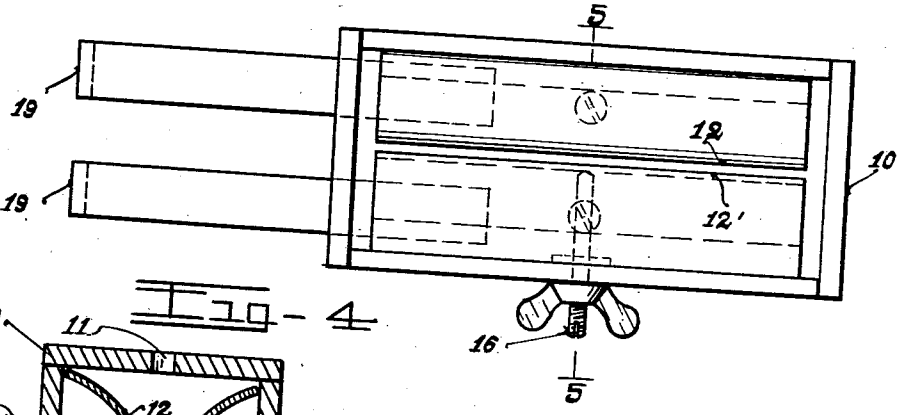


Fig-4

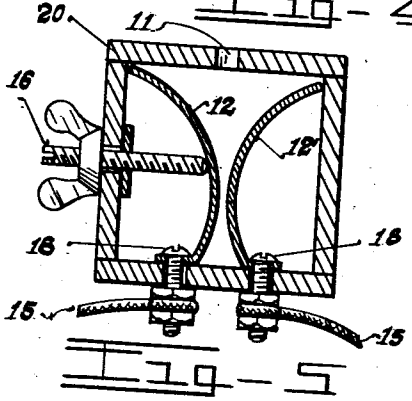


Fig-5

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Patented Aug. 29, 1939 2,171,329

UNITED STATES PATENT OFFICE

2,171,329

RAIN DETECTING MEANS

James Boone, Clinton, N. J.

Application February 7, 1938, Serial No. 189,102

2 Claims. (Cl. 200—52)

This invention relates to new and useful improvements in means, whereby to avoid damages to drapes, curtains, furniture and floors, when in a house, or an apartment the windows are left open, and it suddenly commences to rain.

It will accordingly appear that this invention serves a distinct purpose, especially summer time, when the windows are mostly left open all the time, and, also, at night when people are asleep.

Thus, the present invention pertains to a rain detector in which one drop of water will set off an alarm, and in this manner inform the people in the house that it is raining, so that they may close the windows and shut off the switch, and, thus, as said before, avoid any damages from the rain, thereby effecting a considerable saving.

As the construction of my device is comparatively simple, the cost of manufacturing the same should be proportionately low.

With the above and other objects in view, this invention consists of the novel features of construction, combination and arrangement of parts, hereinafter fully described, claimed and illustrated in the accompanying drawing, forming part of this application, and in which similar characters of reference indicate corresponding parts in all views, and in which—

Figure 1 is a schematic view of my invention.

Figure 2 shows the relative arrangement of my invention in regard to a house.

Figure 3 is a top plan view of my invention.

Figure 4 is a similar view, as Figure 3, but with the top cover removed, while

Figure 5 is a transverse sectional view on the line 5—5 in Figure 4.

Referring more particularly to the drawing, 10 indicates a rain detector box, which constitutes the main subject matter of my invention. Said box is made of wood, or any suitable material, and is enclosed on all four sides. In the top cover 20 of said box are formed small openings, indicated at 11, through which drops of water will fall or pass, when it rains; it being naturally understood that said box is arranged upon the outside of a house, such as, for instance, at the eaves of the latter, so as to be exposed to the rain.

In the box 10 are arranged two longitudinally extending copper plates 12 and 12', which are situated so near together, as to be able to close an electric circuit, when the moisture in the form of a rain-drop falls between them from any of the openings 11 in the top cover. With the circuit thus closed the apparatus will be at work, and the bell 13 will ring until shut off by the switch 14.

It will be noted that the copper plates 12 and 12', which are of a curved shape and secured to the box at the bottom thereof, as at 18, are suitably connected to the wires of the circuit, as shown at 15, 15, while a screw member 16 upon the side of the box and extending into the latter serves to regulate the distance of the two copper plates from each other. When the rain ceases the copper plates will dry automatically.

Metal strips 19, secured to the bottom of the box 10, serve to attach the latter to a support upon the outside of a house.

The system for operating the device may be noted from the schematic outline in Figure 1, wherein a Bx cable 21 leads from a source to a connecting box 26 arranged in any suitable manner; from said box a Bx cable leads to the detector box 10, where two wires 27 and 27' are connected to the copper plates, as shown at 15, 15 in Figure 5. Said wires then lead to a transformer shown at 22; while from the latter a wire 23 goes to the bell apparatus 13, which may be of the usual well known construction, and the wire 24 goes to a switch 14, from which another wire 25 leads back to the bell apparatus, thus closing the circuit.

In view of the detail description hereinbefore set forth, it is thought that the actual operation of the device will be obvious, and would not need to be further elaborated upon.

It will be evident that small changes may be made in the form, construction and arrangement of the several parts, as shown, within the scope of the appended claims, without departing from the spirit of the invention, and I do not, therefore, wish to limit myself to the exact construction and arrangement shown and described herein.

What I claim as new, and desire to secure by Letters Patent of the United States, is—

1. A rain detector of the character described, comprising a housing, a perforated cover on said housing, an insulating base forming a part of said housing, two curved metallic members mounted parallel on said base and forming in cross-section a concave air space narrow at the center, connecting means for wiring said metallic members to an electric circuit, and a screw adjustment operable from the outside, whereby one of said metallic members may be relatively adjusted with respect to the other member.

2. A rain detector of the character described, comprising a housing enclosed on all sides, and having an insulated bottom, the roof of said housing being made with a plurality of perforations therein, longitudinally extending metal plates ar-

ranged in said housing and forming part of an electric circuit, said metal plates being formed with an inwardly extending curvature, the said plates being rigidly fixed to the bottom of the housing and having their upper ends loosely extending in an upward direction, whereby to permit said plates to move towards or away from each other, and a screw arranged through the side wall of said housing and adapted to contact one of said plates, whereby to effect a relative adjustment of the latter, so that a drop of rain water by falling between said plates will close the electric circuit.

JAMES BOONE.