

R. D. GPAFFORD.  
RAIN ALARM.  
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1,285,986.

Patented Nov. 26, 1918.

*Fig. 1.*

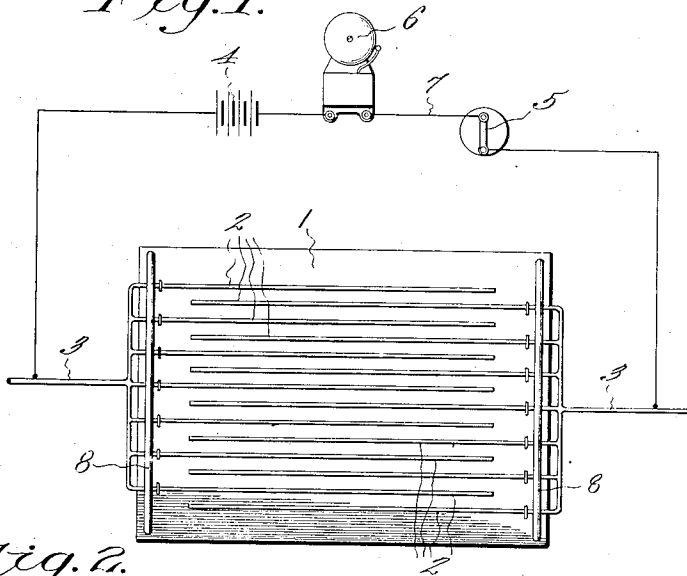
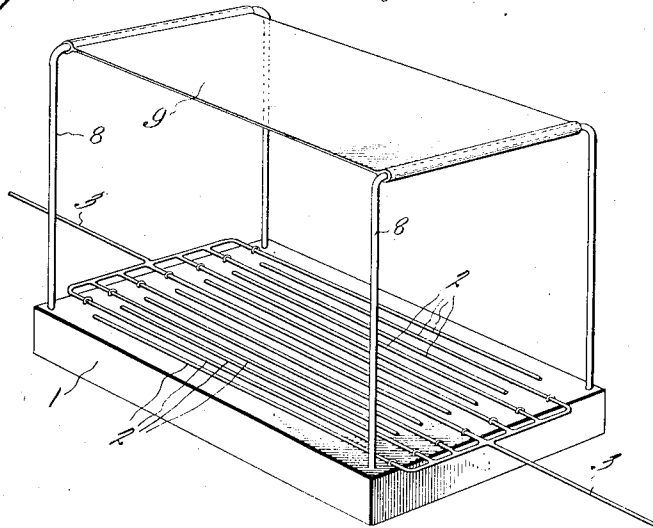


*Fig. 2.*



WITNESSES.

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# UNITED STATES PATENT OFFICE.

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## RAIN-ALARM.

1,285,986.

Specification of Letters Patent.

Patented Nov. 26, 1918.

Application filed December 14, 1917. Serial No. 207,176.

*To all whom it may concern:*

Be it known that I, RUSSELL D. GRAFFORD, a citizen of the United States, residing at Marshall, in the county of Calhoun and State of Michigan, have invented new and useful Improvements in Rain-Alarms, of which the following is a specification.

This invention relates to rain alarms adapted to be used upon dwellings or other buildings for warning the occupants thereof that a rain has started in order that windows may be closed to prevent the rain from entering the building or structure and causing damage.

With this object in view the alarm comprises a block to be placed upon the roof of the building or structure, the said block being of insulating material. Spaced copper rods are located upon the upper surface of the block and the said rods are arranged in two sets the members of one set being located in the spaces between the members of the other set. All of the members of one set are connected together and connected with current wires. These wires in turn are connected with a source of electricity as for instance a generator or battery and also with a signaling device as for instance a bell or a buzzer. The parts which constitute the electric circuit may be provided with a suitable switch mechanism if desired. The bell signal device is located within the building or structure and when the rain begins to fall it will encounter the rods thereby completing the circuit, which previously was open, and the bell or alarm will be sounded. Thus the occupants of the building are warned and the window and the door openings may be closed before damage is incurred.

In order to prevent the apparatus from being operated during light showers a canopy is placed over the spaced rod which will prevent the rain from settling upon the same but sufficient space or room is left between the edges of the canopy and the block to permit the wind, which generally accompanies a heavy or driving rain, to blow the rain under the edges of the canopy and upon the rods, thereby operating the signal.

In the accompanying drawings:—

Figure 1 is a diagrammatic view of the rain alarm.

Fig. 2 is a perspective view of the same.

As illustrated in the accompanying drawings the rain alarm comprises a block 1 of wood or other suitable insulating material and adapted to be placed upon the roof of a building or structure. Spaced rods of copper or other suitable conducting material are arranged upon the upper surface of the block 1 and the said rods are arranged in two sets, the rods of each set being connected together. The rods of one set lie in the spaces between the rods of the other set and the connected ends of the rods of the two sets are located at the opposite ends of the block 1. Wires 3 are connected with the respective sets of rods 2 and one wire 3 may be connected with a battery or generator 4 and the other wire 3 connected with the terminal of a switch 5. A bell or alarm device 6 is connected with the wire 7 which in turn connects the switch 5 with the generator 4. A frame 8 is mounted upon the block 1 and carries at its upper portion a canopy 9 of muslin or other suitable woven fabric. The canopy 9 is spaced from the rods 2 but there is sufficient space between the edges of the canopy and the edges of the block 1 to permit the wind to blow the rain under the canopy and upon the rods 2. However the said canopy 9 will prevent light rain from settling upon the rods and completing the electric circuit. When the circuit is completed by the precipitation of copious rain upon the block 1 and between the rods of the electric circuit over the wires 3 and 7, the bell or alarm 6 is sounded or operated whereby the occupants of the building or structure are warned and the window and the door openings may be closed before the driving rain has caused damage within the building or structure.

Having described the invention what is claimed is:—

A rain alarm comprising a block of insulating material, rods of conducting material mounted upon the block and spaced from each other, said rods being in two connected sets, the rods of one set lying in the spaces between the rods of the other set, electric conducting means connected with the sets of rods and a canopy located over the block and spaced from the rods.

In testimony whereof I affix my signature.

RUSSELL D. GRAFFORD.