

Jan. 11, 1955

H. L. MICHAELS

2,699,484

DEICER FOR ROOFS

Filed Nov. 7, 1952

Fig. 1

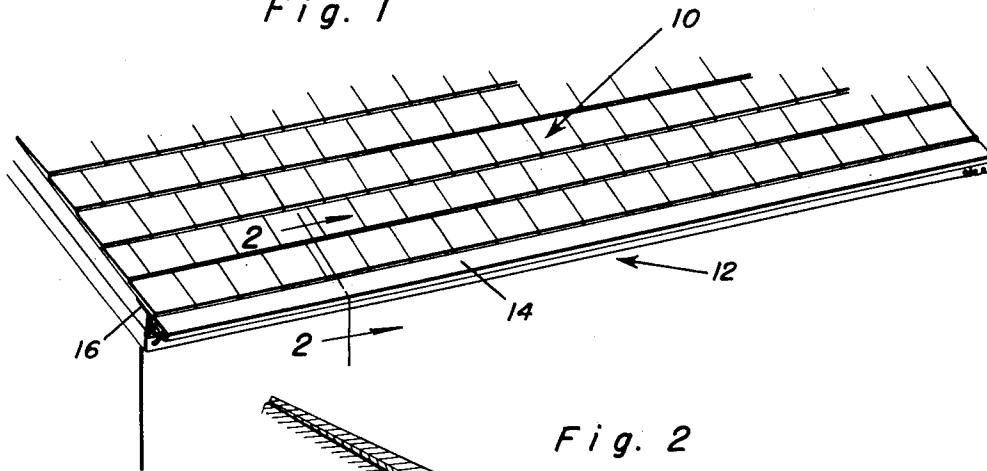


Fig. 2

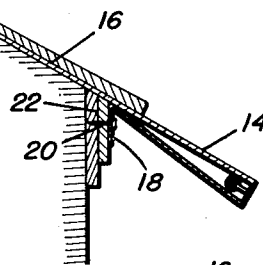


Fig. 3

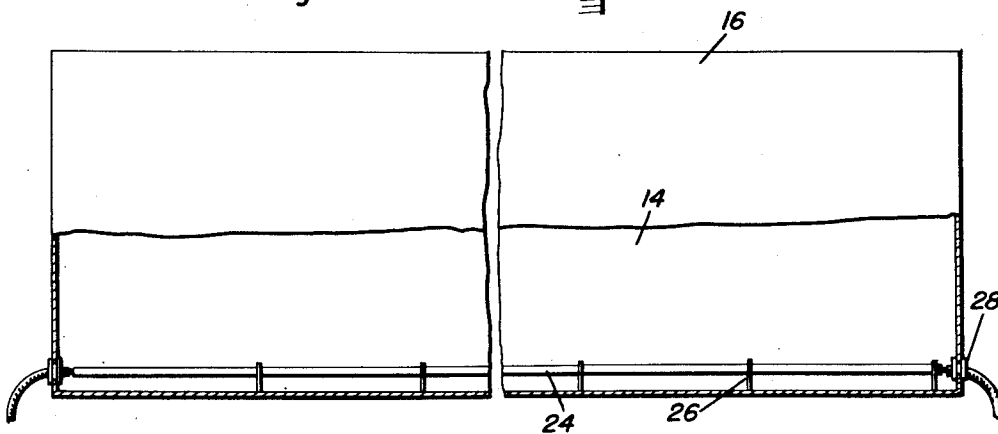
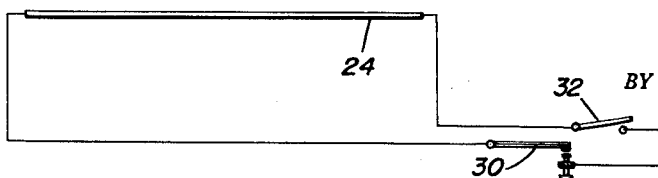


Fig. 4



Herbert L. Michaels

INVENTOR.

BY

Alvanice A. O'Brien
and Harvey B. Jackson
Attorneys

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2,699,484

DEICER FOR ROOFS

Herbert L. Michaels, Sault Sainte Marie, Mich.

Application November 7, 1952, Serial No. 319,256

1 Claim. (Cl. 219—19)

This invention relates to roof de-icer for preventing the accumulation of snow and ice on the roofs of houses and like building structures.

In northern sections of this country, it is known that damage to building structures and possible injury to persons is likely to result because snow and ice accumulates and is formed on the lower portions of a roof adjacent to the customary gutter or eave resulting in the formation of icicles along the edges of the roof as well as causing, during a storm, water to back under roof shingles so as to seep or leak into the house causing damage to walls, ceilings, plaster, etc. It is therefore the primary object of this invention to provide a roof de-icer which will melt any snow or ice along the eaves of the roof to thereby eliminate damage to the structure and injury to personnel which otherwise might have been caused by such collection of snow or ice.

The particular feature of the invention is the shingle-shaped casing which may be readily attached to the trim boards of the house which is so shaped as to be pleasing in appearance while reinforcing the roof structure and being strong enough structurally to support a ladder.

Still further objects of the invention reside in the provision of a de-icer for roofs that is durable, easy to install, inexpensive to operate, and relatively simple to produce.

These, together with the various other objects and advantages which will become apparent as the following description proceeds are attained by this roof de-icer, a preferred embodiment of which has been illustrated in the accompanying drawings, by way of example only, wherein:

Figure 1 is a perspective view showing the device comprising the present invention as operatively installed on a roof;

Figure 2 is a vertical sectional view as taken along the plane of line 2—2 of Figure 1 and shown in an enlarged scale for greater clarity;

Figure 3 is a top plan view of the roof de-icer; and,

Figure 4 is a wiring diagram showing the thermostatic control for actuating the invention.

With continuing reference to the accompanying drawings, when like reference numerals designate similar parts throughout the various views, reference numeral 10 generally designates a shingle roof on which the device comprising the present invention generally indicated at 12 is adapted to be secured.

This roof de-icer includes a casing 14 which if preferably formed from galvanized iron and which is similar in shape to a shingle. The casing 14 has an upper

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portion 16 adapted to be engaged underneath the lowermost course of the shingles. The casing 14 is further provided with a downwardly extending flange 18 which is adapted to be secured by suitable nails 20 or like fasteners to the trim boards 22.

Within the casing 14 and insulated therefrom by a surrounding sheet of plastic material is an electrically conductive conduit 24 which is suitably supported and held in spaced relationship from the casing 14 to insure proper air circulation. Suitable support elements 26 may be used to support the conduit 24. Insulators 28 may be provided to protect the conduit 24 at the point of entrance to the casing 14.

The conduit 24 is coated or provided with a sheath of plastic material so as to insulate the conduit against grounding within the casing. However, this insulation is not a good heat insulator and thus readily permits a proper circulation of the heat within the hollow casing 14.

A thermostatically controlled switch 30 is provided for actuating the de-icer in response to a pre-set outside temperature so as to cause automatic operation of the de-icer. A hand operated switch 32 is provided for manual control of the de-icer.

In operation, with the switch 32 thrown into its closed position, and the temperature having fallen below the pre-set actuation temperature, the thermostatically controlled switch 30 will close the circuit through the heating coil 24. This will cause the casing 14 to become moderately warm so as to insure the melting of any snow or ice gathered thereon and to thus prevent the building up of ice along the eaves of the roof.

Since from the foregoing, the construction and advantages of this de-icer for roofs are readily apparent, further description is believed to be unnecessary.

However, since numerous modifications will readily occur to those skilled in the art after a consideration of the foregoing specification and accompanying drawings, it is not intended to limit the invention to the exact construction shown and described, but all suitable modifications and equivalents may be readily resorted to, falling within the scope of the appended claim.

What is claimed as new is as follows:

A de-icer for roofs comprising a hollow shingle-shaped casing forming an extension of a roof, a flange depending angularly with respect to said casing and downwardly from said casing medial the upper and lower ends thereof for attaching said casing to the trim boards of the roof, an electrically conductive conduit in said casing, and a sheath of electrically insulative plastic material in said casing about said conduit, said sheath and said conduit being held in spaced relationship in said hollow casing by a plurality of support elements attached to said sheath and to said casing to insure circulation of air within said casing and about said sheath.

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