July 13, 1937. B. W. DEZOTELL 2,087,024

TEMPERATURE CONTROLLED SWITCH

Filed Aug. 7, 1934

Fig. 1

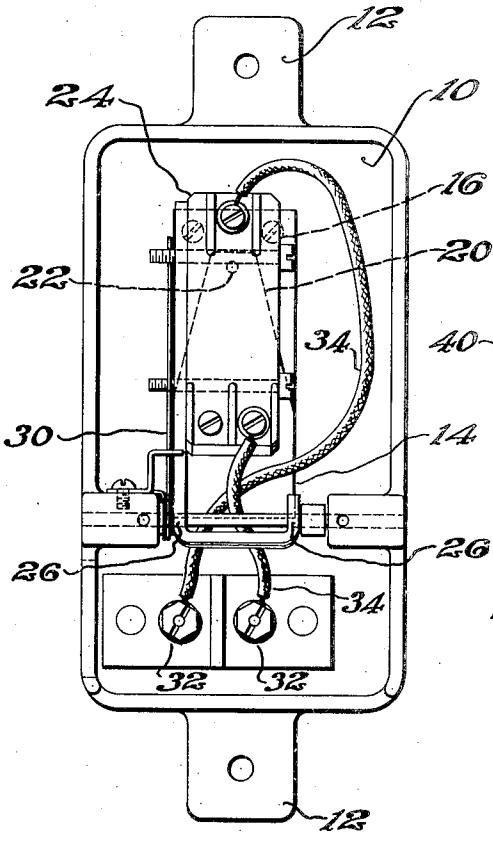
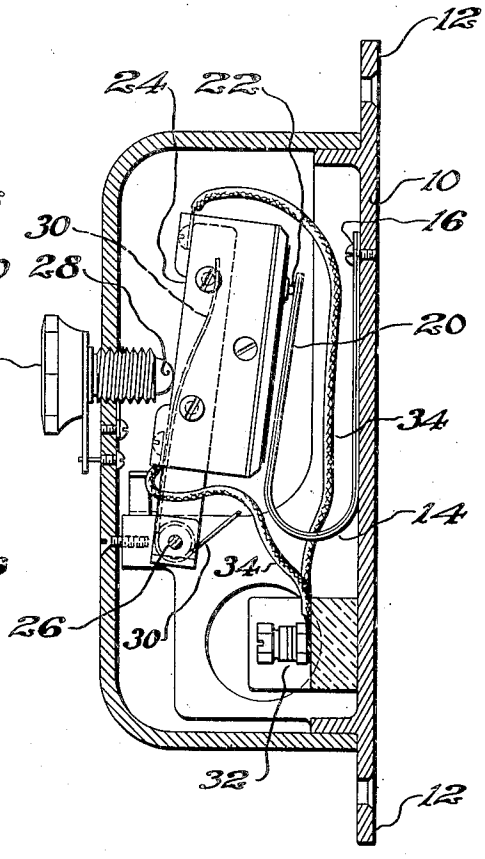


Fig. 2



Witness

Paul F. Bryant

Inventor

Bernard W. Dezotell

by Fish Hildreth

Cary & Jenney Attys

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UNITED STATES PATENT OFFICE

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TEMPERATURE CONTROLLED SWITCH

Bernard W. Dezotell, West Roxbury, Mass., assignor to United Electric Controls Company, Boston, Mass., a corporation of Massachusetts

Application August 7, 1934, Serial No. 738,787

1 Claim. (Cl. 200—138)

The present invention relates to temperature controls, and more particularly to controls of this character designed as limit controls in conjunction with hot water heating systems for cutting in and out an electric circuit in accordance with the temperature of water within the system.

The purpose and object of the invention are to provide a simple and accurate control of this character which may be readily attached to a conductor containing the hot water, and which will reflect the temperature of the water therein in a manner to operate the controlling circuit.

In the accompanying drawing, Fig. 1 represents a front elevation of the instrument with the cover removed; and Fig. 2 is a side elevation partially in section of the same instrument.

Referring particularly to the illustrated embodiment of the invention, the instrument is provided with a back plate 10 of conducting material provided with drilled tabs 12 in contact with a conductor pipe through which heat is directly communicated to a bi-metallic thermostat 14 attached directly to the back plate at 16, and extending therealong to reflect heat communicated thereto. This thermostat, as indicated, is in a general U-shape, with a fixed leg in communication with the back plate throughout the length of the leg, a bent portion and a free or movable leg 20 which serves to directly operate the projecting pin 22 of a self-contained switch unit 24. The switch unit is provided with an insulating housing, and is of the snap spring type.

The unit as a whole is pivotally mounted at 26 remote from its free end, and is normally retained in contact with an adjusting abutment 28 through a bowed spring 30. It is electrically connected with terminal posts 32 through leads 34. By bodily adjusting the operating end of the switch unit through the projecting knob 40 of the abutment, the latter may be regulated to function at different temperatures.

The employment of the bi-metallic thermostat in the form shown, because of its facility in conducting heat, is an important and desirable adjunct of the unit, enabling it to reflect in its operation relatively slight changes in the temperature of the water.

What is claimed is:—

A temperature controlled switch unit comprising a flat conducting plate adapted to contact directly with a closure the temperature of which is to be reflected, a bi-metallic spring of generally U-shaped form having a fixed leg fastened to the conducting plate and in contact therewith throughout substantially the complete length of the fixed leg, a snap switch pivotally mounted adjacent one end, and connections between the end of the free leg of the bi-metallic spring and the snap switch to operate the latter upon distortion of the leg through heat communicated from the conducting plate in intimate contact with the fixed leg of the spring.

BERNARD W. DEZOTELL.