June 28, 1966 H. A. BURDWOOD 3,258,757

THERMO-BEACON

Filed Oct. 18, 1963

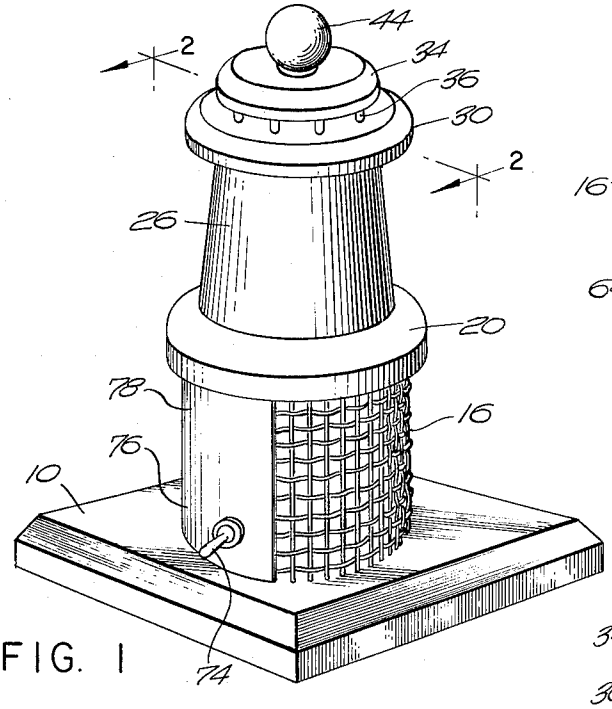


FIG. 1

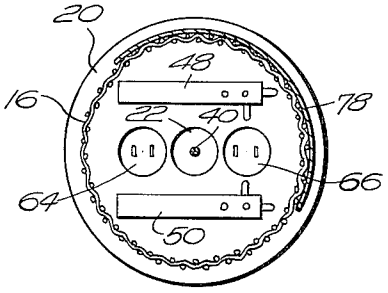


FIG. 3

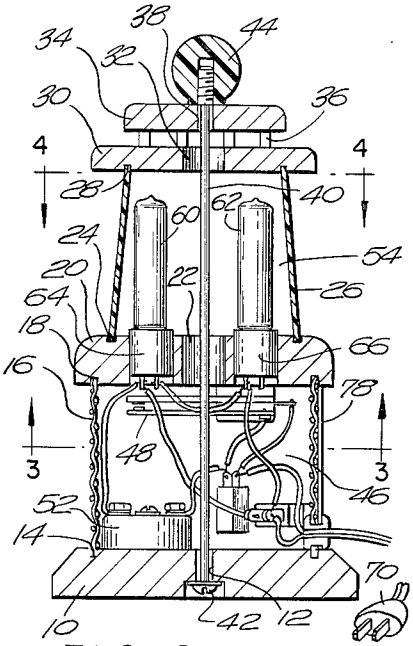


FIG. 2

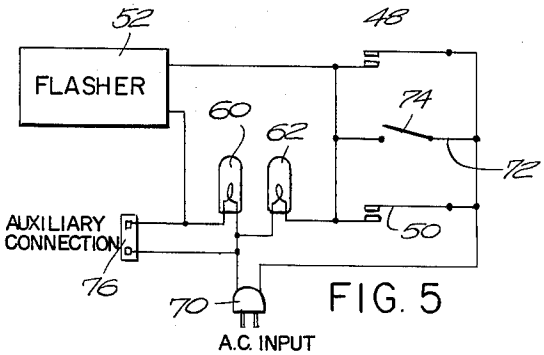


FIG. 5

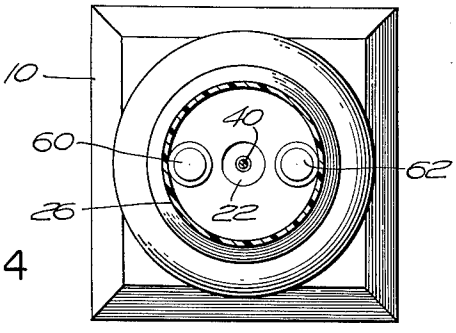


FIG. 4

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THERMO-BEACON

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3 Claims. (Cl. 340—227)

This invention relates to a device for calling attention to a dangerously high or low temperature at its location. It is an object of the invention to provide a device of convenient size which can be placed wherever desired to give warning of imminent freezing or of high temperatures which may be approaching the danger point. As described, the device is adapted to be plugged in at any service outlet. It is designed to be simply and easily made and assembled and to be effective in operation. For a more complete understanding of the invention, reference may be had to the following description thereof, and to the drawing, of which

FIGURE 1 is a perspective view of a device embodying the invention;

FIGURE 2 is a section on the line 2—2 of FIGURE 1;

FIGURE 3 is a section on the line 3—3 of FIGURE 2.

FIGURE 4 is a section on the line 4—4 of FIGURE 2; and

FIGURE 5 is a wiring diagram of the device.

The device illustrated on the drawings comprises a base 10 which may be made of any convenient material, such as wood. This base has a central hole 12 around which is a narrow circular groove 14 to receive the bottom edge of a cylindrical wire net 16, the upper edge of which is received in a groove 18 in the bottom of a disk 20. This disk has a central hole 22, the groove 18 being concentric therewith. In the upper face of this disk is another circular groove 24 to receive the bottom edge of a tubular member 26 of transparent plastic, glass or the like, which is preferably colored red. This member 26 may be cylindrical but, as shown, may taper somewhat upwardly. The upper edge of this tubular member is received in a circular groove 28 in a second or upper disk 30 which has a central hole 32 concentric with the groove 28. A third disk 34 may be spaced a short distance above the disk 30 and separated therefrom by a number of dowels 36, the opposing faces of the disks 30 and 34 being bored to receive the ends of the dowels 36. The disk 34 also has a central hole 38. A tie rod 40 is employed to hold these parts in assembled relation, the tie rod having a head 42 which is countersunk in the bottom of the base 10 and a nut 44 threaded on its upper end. This nut may be an ornamental piece such as a ball of colored plastic material. The tie rod 40 passes up through the holes 12, 22, 32 and 38, the diameter of the tie rod being considerably less than the diameters of the holes 22 and 34. The cylindrical wire screen 16 together with the base 10 and disk 18 forms a lower chamber 46 in which are mounted two thermostats 48, 50 and a flasher 52. The thermostats and flasher may be of any well known construction and need not be described in detail as they are available anywhere. The transparent wall 26, together with the disks 20 and 30, form an upper chamber 54 in which are mounted two electric lamps 60 and 62, these lamps being supported by suitable bases 64 and 66, respectively, the bases being mounted in the disk 20.

The thermostat 48 is constructed or adjusted to close when the ambient temperature goes below a predetermined minimum such, for example, as 40° Fahrenheit. The thermostat 50 is constructed or adjusted to close when the ambient temperature exceeds a predetermined figure such, for example, as 135° Fahrenheit. The two thermostats are connected in parallel in a circuit which goes through the two lamps 60 and 62 so that if either of the thermostats closes, the lamps will be lighted to provide a warning signal. One of the lamps is connected in series with the flasher 52 so that when the lamps are lighted, one glows steadily while the other flashes intermittently. The thermostats, lamps and flasher are connected by suitable wiring as shown in FIGURE 5 to a plug 70 by which the apparatus can be connected to a domestic lighting circuit or any other suitable source of power. A shunt circuit 72 containing a switch 74 is provided to bypass the thermostats so that when the switch 72 is closed, the lamps 60 and 62 will light up if the circuit is in good order. Provision is made for connecting an auxiliary warning signal which may be of any type desired, either visual or audible, this auxiliary signal being electrically operable and being connected to a plug (not shown) adapted to be plugged into an ordinary outlet 76 which is in parallel with the lamps and thermostats.

I claim:

1. A temperature warning device comprising a base having a central hole therethrough and a narrow circular groove in its upper face concentric with said hole, a disk above said base having a central hole therethrough and concentric narrow circular grooves in its bottom and top faces, a cylindrical wire net between said base and disk forming therewith a lower chamber, the lower edge of said net fitting in the groove in said base, the upper edge of said net fitting in the groove in the bottom of said disk, said disk having two electric lamp sockets mounted therein, a light bulb in each said socket, a second disk above the first said disk, said second disk having a central hole therethrough and a narrow circular groove in its bottom face concentric with said hole, an approximately cylindrical lens between said disks forming therewith an upper chamber, the ends of said lens being engaged in the grooves in the top face of the first disk and bottom face of the second disk, a vertical tie rod extending through said holes to hold said base and disks in assembled relation, two thermostats and a flasher mounted in said lower chamber, a plug for connecting said device to an electric power supply, and wiring connecting both said lamps to said thermostats and plug, and one of said lamps in series with said flasher.

2. A device as described in claim 1, said wiring including a shunt circuit bypassing said thermostats and containing a switch for testing said lamps.

3. A device as described in claim 1, said wiring including an outlet adapted to receive a plug connected to an auxiliary signal member.

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