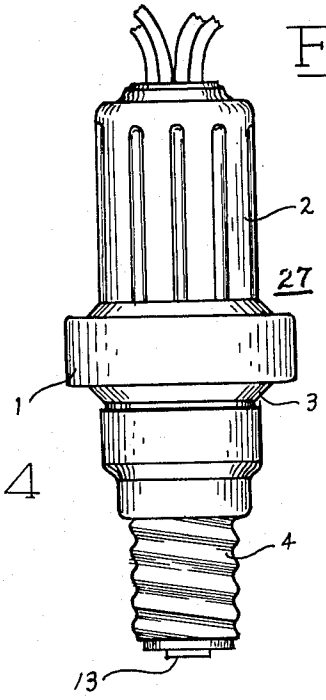
Dec. 15, 1942. G. B. DAVIS, JR 2,304,888

THERMOSTATIC FLASHER

Filed Feb. 19, 1940 2 Sheets-Sheet 1

Fig. 1



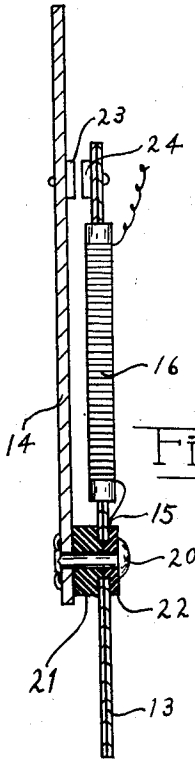


Fig. 4

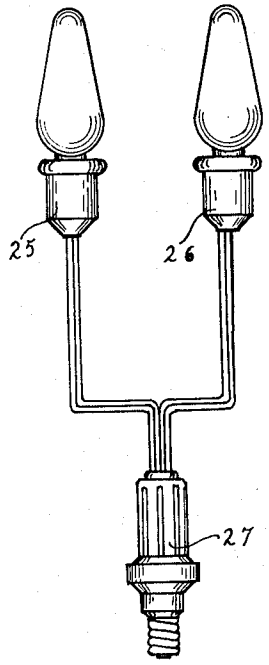


Fig. 3

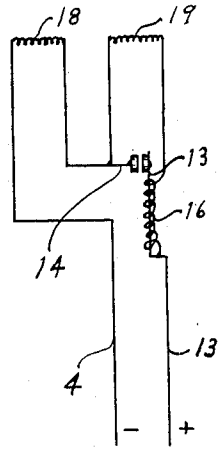


Fig. 5

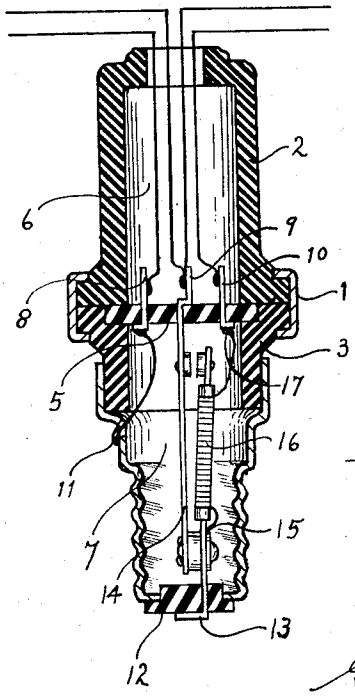


Fig. 2

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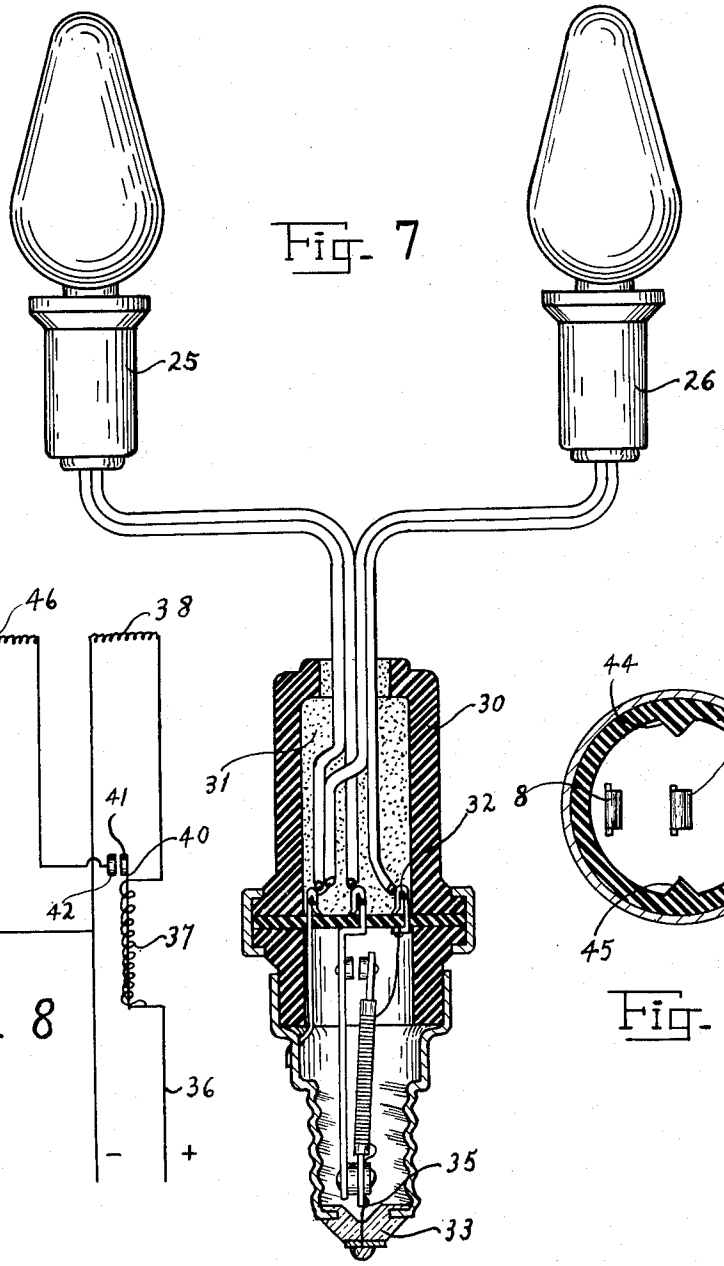


Fig. 7

Fig. 8

Fig. 6

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UNITED STATES PATENT OFFICE

2,304,888

THERMOSTATIC FLASHER

George B. Davis, Jr., Washington, D. C.

Application February 19, 1940, Serial No. 319,779

2 Claims. (Cl. 177—346)

This invention relates to a thermostatic circuit control mechanism adaptable solely and specifically to lights hooked in series, as those for display and ornamental purposes.

I believe this invention new and novel in that instead of breaking circuit in a series, as is the case with the flashing mechanism now in use, this invention flashes the individual globe by distributing the current through two lights, thus causing alternate twinkling effect without materially affecting the other lights in the series of a string of lamps in series.

Another object of the invention is to provide a means for having a thermostatic mechanism flash two lights alternately, thus by diverting the flow of current through a second light the current to the remaining lights in the series is not increased.

A further object of the invention is to provide a flasher, rugged in construction, which shall be relatively inexpensive to manufacture, easily assembled, yet practical and efficient to a high degree.

In the accompanying drawings are shown the various possible embodiments of this invention.

Fig. 1 is an elevation of the invention housing the mechanism.

Fig. 2 a sectional view showing the assembly.

Fig. 3 a view of the invention in combination with two sockets.

Fig. 4 a view of the thermostatic mechanism.

Fig. 5 a circuit diagram of the invention as shown in Fig. 2.

Fig. 6 a section on Fig. 2 showing the insulating partition supporting the thermostat.

Fig. 7 a sectional view of a variation of the invention in combination with two sockets.

Fig. 8 a circuit diagram of the variation as shown in Fig. 7.

Fig. 1 shows a view of the portion of the invention housing the thermostatic mechanism.

In Fig. 2 1 is a metal band pressed into position and holding together insulating receptacles 2 and 3. Held in position between 2 and 3 is a supporting disk of insulation 5 which separates cavity 6 from 7. 4 is an inserting screw shell that fits around 3 and is electrically connected with terminal 8 at point 11. 12 is an insulating portion that fits up into 4 and supports bar 13 which forms the base contact of the socket. Bar 14 is affixed to bar 13 but insulated therefrom by washers 21 and 22. Bar 14 extends through 5 and forms terminal 9. The resistor 16 connects with bar 10 at point 17 and bar 13 at point 15. The mechanism is held in place within screw shell 4 by bending bars 13 and 14 as shown.

In the operation of this mechanism we will refer to Fig. 5. One circuit passes up terminal 13 through resistor 16 and connects with the other circuit through filaments 18 and 19; the heat given off by current passing through 16 causes thermo-strip 13 to bend forward and contact 14; on so doing the current is shunted around filament 19 and in full through filament 18 causing it to get brighter. A cooling of the resistor will permit bar 13 to move away from contact with bar 14 permitting the current to pass again through filament 19.

Fig. 4 shows a sectional view of the thermostatic mechanism. 14 is the supporting bar; 23 and 24 contact points; 13 thermostatic strip affixed to bar 14 by rivet 20 but insulated from same by washers 21 and 22. Resistor 16 is wound around 13 but insulated therefrom at all points except where contact is made at point 15.

Fig. 3 shows the device 27 in combination with a pair of lamp sockets 25 and 26.

Fig. 7 is a sectional view of a variation of the same invention differing from Fig. 2 in that this construction can be made water proof by sealing up the base of the screw shell as shown at 33, with a wire connecting to the mechanism at 35 and soldered in place at 34; and by filling 30 with an insulating plastic 31. Contacts with the lamp socket leads and the terminals of the mechanism are made by bending the terminals bars into contact as shown at 32.

Fig. 8 shows the circuit diagram of the invention as shown in Fig. 7. Current passes up 36 through resistor 37 and completes the circuit through filament 38. Current passing through resistor 37 causes it to heat, actuating thermostrip 40 causing contact 41 to move into contact with 42, shunting the current through 46, allowing resistor 37 to cool and 41 to move away from 42. The result is an alternating flashing effect of the two filaments 38 and 46.

The object of the extension wire connecting the mechanism with the two sockets is to permit the two sockets being placed far enough apart so that the distinct alternate flashing effect will not be noticed. The mechanism just described can only be used with lights hooked up in series.

Fig. 6 is a plan view relating to Fig. 2, showing metal band 1 with insulating receptacle 3 and disk 5 as it fits into 3. Indentions 44 and 45 are to prevent the rotation of disk 5.

I claim:

1. A combination of an inserting plug member, a pair of receiving socket members, current con-

veying means leading from said plug member to said socket members, thermostatic means housed in said plug member for intermittently diverting a portion of the current from one of said socket members to the other of said socket members.

2. A combination of a pair of lamp sockets, an inserting plug member, a common lead connecting one terminal of each of said sockets with a terminal of said plug member, individual leads connecting the other terminals of said sockets with a thermostatic circuit making and breaking device, said device consisting of a heating coil in circuit with one of said individual leads, a movable thermostatic strip connecting said heating coil for moving into and out of contact with the other of said individual leads, one end of said coil being connected to the other terminal of said plug member.

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