

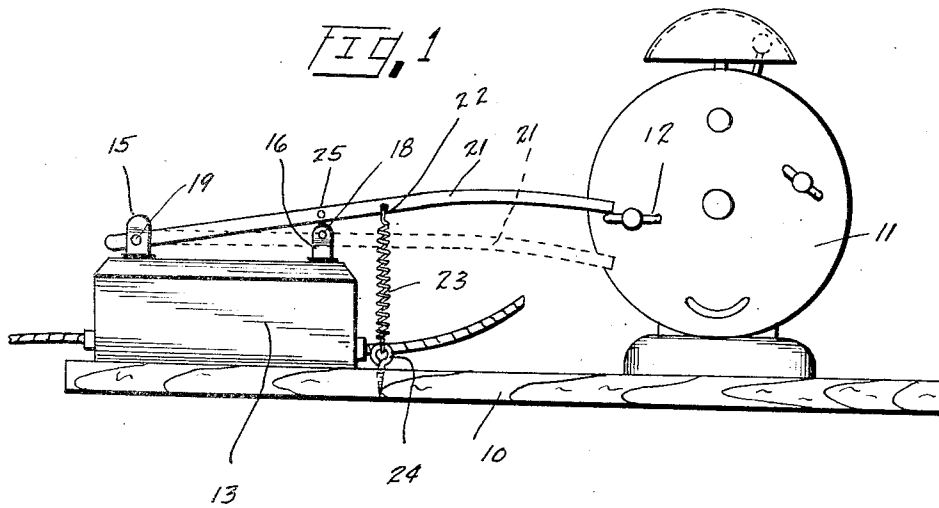
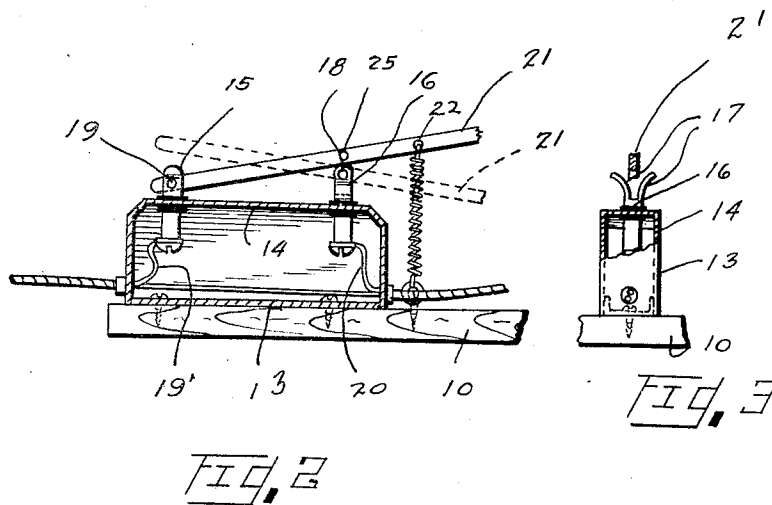
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2,436,906

CLOCK-CONTROLLED SWITCH

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CLOCK-CONTROLLED SWITCH

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1 Claim. (Cl. 200—35)

1

This invention relates to an automatically operated switch and has for its object to effect control of electrically actuated mechanism at a predetermined time. Among its features, my invention embodies a switch arm adapted to be supported on the alarm winding key of an alarm clock in such a manner that when the arm is pivoted at one point, it may be used to turn on an electric current for controlling a furnace thermostat, radio, or other kinds of electrical equipment, and when the arm is pivoted at a different point, the device may be used to discontinue the flow of current to electrical devices of various natures.

In the drawings:

Figure 1 is a side view of my improved electrical switch showing the switch arm pivoted to turn on the electrical flow through the switch when the winding key of an alarm clock starts to rotate,

Figure 2 is a longitudinal sectional view through the device illustrated in Figure 1, and

Figure 3 is an end view showing portions broken away to more clearly illustrate the details of construction.

Referring to the drawings in detail, a shelf, table top or like supporting structure 10 is shown as supporting near one end an alarm clock 11 having an alarm winding key 12 and near its opposite end a switch designated generally at 13, the switch arm of which is shown as resting on the alarm winding key 12.

The switch 13 above referred to comprises a housing 14, preferably formed of a suitably non-conducting material, such as hard rubber, Bakelite, or the like. Supported at opposite ends of the housing 14 and projecting through said housing into the interior thereof are contact members 15 and 16, each of which is provided with a pair of upstanding arms 17 which are pierced, as at 18, to receive a pivot bolt 19, the purpose of which will more fully hereinafter appear. The contact members 15 and 16 extend into the interior of the housing 14 and have connected thereto, respectively, the terminal of a power supply source 19' and the terminal 20 of a wire which leads to the equipment to be controlled.

Pivotaly mounted on the pivot bolt 19 is a switch arm 21 having formed intermediate its ends an opening 22 to which a retractile coil spring 23 is connected. The opposite end of the spring 23 is connected to a suitable eye 24 fixed to the base 10 so that the spring will normally urge the arm 21 into contact with the contact member 16 to establish the flow of current there-

2

through. Formed in the arm 21 and adapted when the arm is in engagement with the contact 16 to align with the opening 18 therein is an opening 25 which may be used to receive the pivot pin 19 when the device is to be used to discontinue the flow of current to a piece of electrical equipment when the alarm winding key 12 is set in motion.

In operation, assuming that the pivot pin 19 is in the position shown in Figures 1 and 2, that is, extending through the openings in the contact member 15 and the arm 21, it will be seen that when the arm is supported on the winding key 12 of the alarm clock 11, it will be held out of contact with the contact member 16, though urged into contact therewith under the influence of spring 23. As soon as the winding key 12 starts to rotate in a counterclockwise direction, it is obvious that the arm 21 will fall into the dotted line position shown in Figure 1 so as to establish contact between the contact members 15 and 16 so as to permit the flow of current from the supply wire 19 through the contact member 15, arm 21 and contact member 16 out through the terminal 20 of the wires leading to the piece of equipment to be operated. Should it be desired to use the switch to disconnect the flow of current through a piece of equipment, the pin 19 is removed from the apertures in the contact 15 and is transferred so as to project through the apertures 18 of the contact 16 and through the opening 25 in the arm 21. In this position, under the influence of the spring 23, the arm 21 will tend to swing about the pivot pin 19 so as to lift its opposite end out of contact with the contact 15 so that when the alarm winding key 12 starts to rotate, the flow of current from feed wire 19 to wire 20 will be interrupted, thus discontinuing the service of power to the equipment connected with the device.

While in the foregoing there has been shown and described the preferred embodiment of this invention, it is to be understood that minor changes in the details of construction, combination and arrangement of parts may be resorted to without departing from the spirit and scope of the invention as claimed.

Having thus described the invention, what I claim is:

In a device of the class described, a non-conducting casing, a contact supported adjacent one end of said casing, a contact supported adjacent the opposite end of said casing, each such contacts having a pair of apertured upstanding ears, a switch arm having apertures adapted to align with the apertures in the ears of the contacts, a

spring for urging the switch arm to move in one direction, and a pivot pin adapted to be extended through either of one pair of ears or the other pair of ears and the respective openings in the switch arm whereby the switch may be used not only to establish the flow of current to a piece of equipment, but may also be used to discontinue the flow of current to a piece of equipment when moved in the same direction.

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REFERENCES CITED

The following references are of record in the file of this patent:

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