

June 2, 1925.

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S. SIPEREK

INCUBATOR REGULATOR

Filed July 13, 1923

2 Sheets-Sheet 1

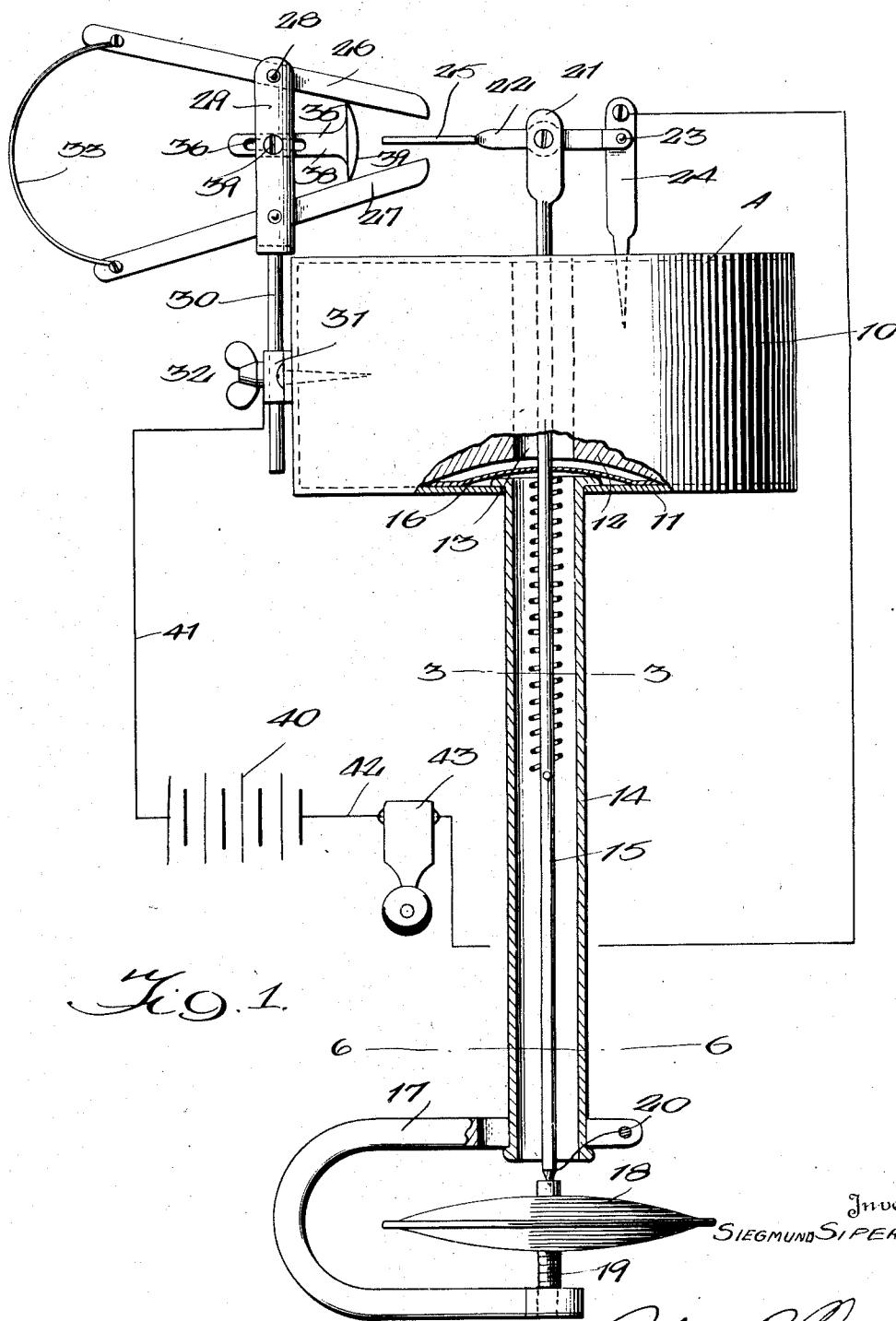


Fig. 1.

Inventor
SIEGMUND SIPEREK,

By

Richard B. Bliven,

Attorney

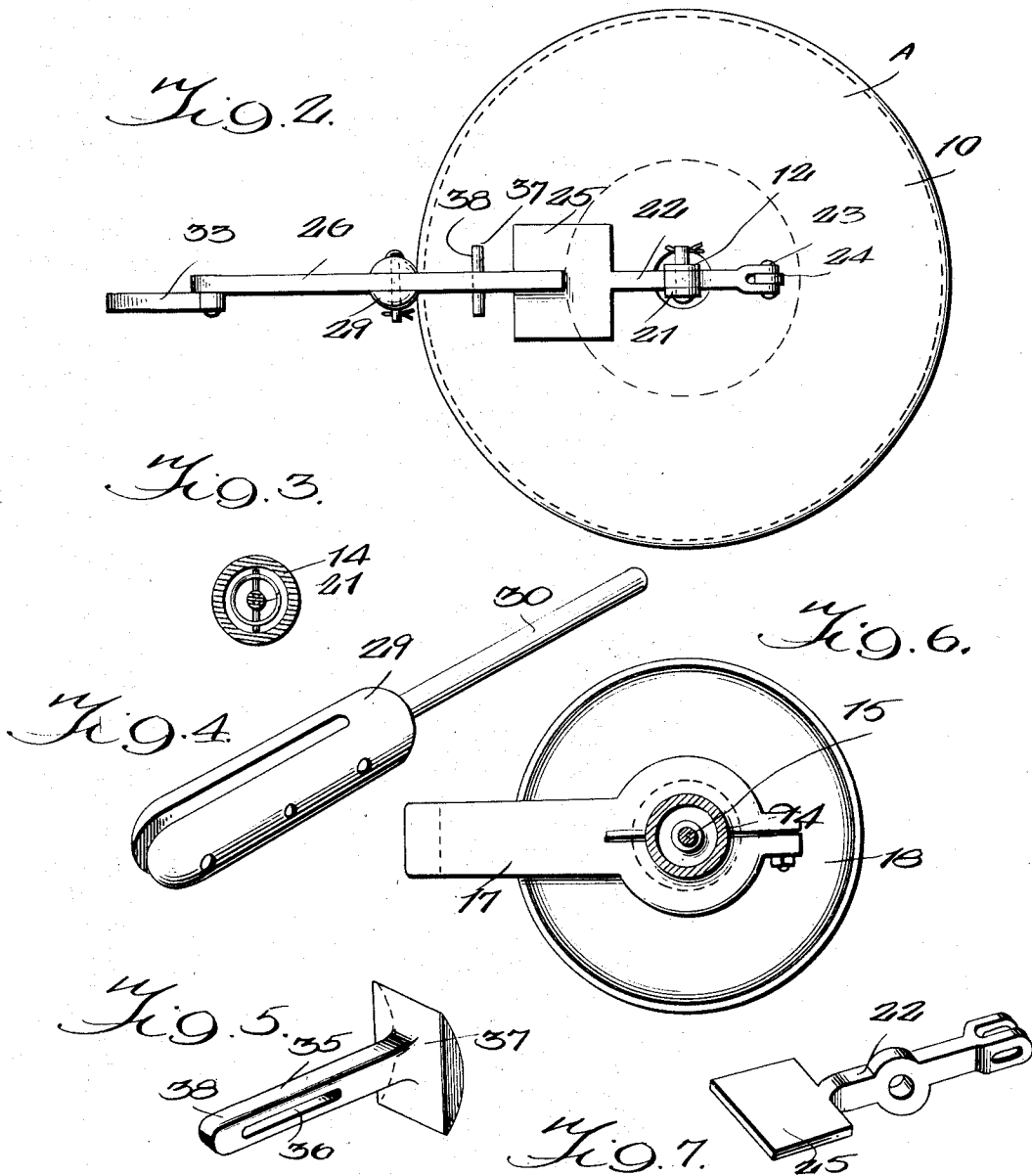
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Inventor
SIEGMUND SIPERREK,

By *Richard B. Clowers*

Attorney

UNITED STATES PATENT OFFICE.

SIEGMUND SIPEREK, OF PENSACOLA, FLORIDA.

INCUBATOR REGULATOR.

Application filed July 13, 1923. Serial No. 651,392.

To all whom it may concern:

Be it known that I, SIEGMUND SIPEREK, a citizen of the United States, residing at Pensacola, in the county of Escambia and State of Florida, have invented certain new and useful Improvements in an Incubator Regulator, of which the following is a specification.

This invention relates to means for insuring that proper attention will be given to incubators at the desired times, so that the incubator will be kept at the proper temperature.

The primary object of the invention is to provide a novel thermostat control for circuit breakers, which will close a circuit, when the temperature of the incubator rises or falls below a predetermined degree, the circuit being utilized for operating a signal or alarm, whereby the attendant of the incubator will be effectively notified that the incubator needs attention.

A further object of the invention is to provide novel means for incorporating the thermostatic alarm with the incubator and novel means for constructing the thermostat, so that the same can be set to operate at any degree of temperature.

A still further object of the invention is to provide an improved thermostat alarm for incubators of the above character, which will be durable and efficient in use, one that will be simple and easy to manufacture, and one which can be placed upon the market and incorporated with the incubator at a small cost.

With these and other objects in view, the invention consists in the novel construction, arrangement and formation of parts, as will be hereinafter more specifically described, claimed and illustrated in the accompanying drawings, in which drawings:

Figure 1 is a side elevation of the improved thermostat alarm, showing parts thereof in section.

Figure 2 is a plan view of the same.

Figure 3 is a detail section taken through the device on the line 3—3 of Figure 1.

Figure 4 is a detail perspective view of the adjustable supporting post for the stationary contact.

Figure 5 is a detail perspective view of the adjustable member for insuring the correct spacing of the stationary contacts relative to one another and the movable contact.

Figure 6 is a detail horizontal section taken through the improved device on the line 6—6 of Figure 1, and

Figure 7 is a detail perspective view of the movable contact.

Referring to the drawings in detail, wherein similar reference characters designate corresponding parts throughout the several views, the letter A generally indicates the improved thermostat control, which comprises a supporting body 10, which can consist of a casing 11 and a filler block 12 formed of wood or the like. The casing 11 of the filler block 12 is provided with a centrally disposed axial way 13, for a purpose, which will be hereinafter more fully described. The support 10 is adapted to be fitted directly on the top of the incubator and a guide sleeve 14 is carried by the casing 11 and extends into the body portion of the incubator. As shown the bore of the guide sleeve 14 communicates with the central way 13 and this way and sleeve 14 receive an axially disposed operating rod 15, the purpose of which will appear, as the description proceeds. In order to prevent the escape of heat from the incubator (not shown) through the sleeve 14, a flexible plate or the like 16 can be provided and arranged in the casing 11 for snugly engaging the operating rod 15. The extreme lower end of the sleeve 15 supports a U-shaped yoke 17 between the arms of which is provided any preferred type of thermostat 18. The lower end of the thermostat 18 carries a threaded stem 19, which is threaded into the lower arm of the U-shaped yoke 17 in order to facilitate the initial adjustment of the thermostat 18, and it can be seen that the lower end of the operating rod 15 is pointed as at 20 and rests upon the upper surface of the thermostat 18 at the axial center thereof. By this description, it can be seen that during expansion and contraction of the thermostat 18, that the rod 15 will be raised and lowered. The extreme upper end of the rod 15 extends beyond the upper end of the support 10 and is provided with a yoke 21 which pivotally supports the movable contact 22 at a point intermediate its ends. The outer end of the movable contact 22 is pivoted as at 23 to a supporting post 24, which is carried by the support 10. The opposite end of the movable contact 22 from the point of connection with the supporting post 24, terminates in a flat

contact plate 25, which is normally arranged between a pair of spaced contact levers 26 and 27. These levers 26 and 27 are pivoted at a point equidistant their ends, as at 28, to the upper and lower ends respectively of a yoke 29, which is formed on the upper end of a post 30. This post 30 is adjustably carried by a bracket 31 and can be held in any preferred adjusted position by means of a set screw or the like 32. The contact arms 26 and 27 are adapted to be normally urged toward one another by means of a bow-shaped leaf spring 33 and in order to hold the active ends of the contact arms 26 and 27 in their desired spaced relation, the adjustable regulating member 35 is provided. This member 35 comprises a shank 38, which is supported at a point equidistant the ends of a yoke 29 by means of a pin or the like 39. This pin extends through a slot 36 formed in the said shank 38. The inner end of the shank carries a head 37 and it is obvious that by adjusting the head toward or away from the yoke 29, that the distance between the outer active end of the contact arms 26 and 27 can be adjusted. In order to bring about the sounding of a signal or alarm when the temperature of the incubator with which the device is associated rises or falls below a predetermined point, a battery 40 is provided and one terminal of the battery is connected by means of a wire 41 with the bracket 31. The opposite terminal of the battery 40 is connected by means of a wire 42 with the supporting post 24, to which it is grounded. A suitable signal or alarm such as a bell 43 is interposed in the wire 42 and it is obvious that when the plate 25 of the movable contact 22 engages either the arm 26 or 27, that the circuit will be closed through the bell 43, whereby the same will give warning that the incubator needs attention.

In the initial setting of the device, the temperature of the incubator is raised the desired degree after which the arms 26 and 27 are arranged in spaced relation to the plate 25 by adjusting the member 35 and the post 30. This adjustment can also be

brought out by adjusting the position of the thermostat 18.

Now when the temperature of the incubator falls below the predetermined degree set, it can be seen that the rod 15 will lower which will swing the contact plate 25 in engagement with the arm 27 and thus close the circuit. Now when the temperature of the incubator rises above a predetermined degree it can be seen that the rod 15 will raise and move the plate 25 in engagement with the arm 26 and thus close the circuit.

From the foregoing description, it can be seen that I have provided an exceptionally simple and durable device, which will effectively give a warning, when the temperature of an incubator rises or falls below a predetermined degree.

Changes in details may be made without departing from the spirit or the scope of this invention.

What I claim as new is:

In a thermostatic control for incubators, a supporting member, an inwardly extending sleeve carried by the supporting member, an inwardly extending movable operating rod disposed in the sleeve, means for actuating the rod, an adjustable supporting post carried by the support, a pair of contact arms pivoted to the post at a point equidistant their ends, means normally urging the inner ends of the arms toward one another, an adjustable member regulating the distance between the inner terminals of the arms, a stationary post, a movable contact member pivoted at its inner ends to the post, and means pivoting the movable contact member at a point equidistant its ends to the operating rod, the free end of the movable contact plate being disposed between the inner terminals of the arms.

In testimony whereof I affix my signature in presence of two witnesses.

SIEGMUND SIPERERK.

Witnesses:

FRANK W. FLECK,
EDWARD F. NOWAK.