

UNITED STATES PATENT OFFICE.

A'QUILLA DUENSING, OF ALTOONA, IOWA.

INCUBATOR.

SPECIFICATION forming part of Letters Patent No. 686,805, dated November 19, 1901.

Application filed July 17, 1900. Serial No. 23,970. (No model.)

To all whom it may concern:

Be it known that I, A'QUILLA DUENSING, a citizen of the United States, residing at Altoona, in the county of Polk, State of Iowa, have invented certain new and useful Improvements in Incubators, of which the following is a specification.

My object is to provide an improved means of simple and durable construction for automatically raising and lowering the lamp-wick by means of a thermostat, and, further, to provide a wick-tube so arranged as to reduce its heat-transmitting quality to a minimum, and also to provide an ample quantity of fresh air to the flame, and yet fully protect the flame against draft.

My invention consists in certain details in the construction, arrangement, and combination of the parts hereinbefore mentioned and hereinafter more fully set forth in my claim, and illustrated in the accompanying drawings, in which—

Figure 1 shows a vertical sectional view of an incubator-body with my improvements applied thereto. Fig. 2 shows in perspective the slotted wick-tube and the water-chamber connected therewith. Fig. 3 shows a detail perspective view of the device for connecting the wick, whereby the wick is raised and lowered. Fig. 4 shows a vertical sectional view through the lamp with the wick raising and lowering device in position relative thereto, and Fig. 5 is a vertical sectional view on the indicated line 5 5 of Fig. 1.

Referring to the accompanying drawings, I have used the reference-numeral 10 to indicate the incubator-body, which may be of any ordinary construction. On the interior of the body is a shelf or bracket 11, and a thermostat 12 is supported upon said bracket. A rod 13 is connected with the thermostat and passes upwardly through opening in the top of the incubator-body. A bracket 14 is secured to the top of the body, and a lever 15 is fulcrumed in said support. On one end of the lever is a counterbalancing weight 16. Beneath the incubator-body I have fixed a bracket composed of wooden blocks 17, having inwardly-projected shoulders 18 at their lower edges. These blocks preferably extend around three sides, thus leaving one side open for the admission of

the lamp, as will be hereinafter explained. The lamp proper is composed of a body 19 to receive oil, and a water-chamber 20, having two parallel sides 21 and also having at its bottom the screw-threaded collar 22 to enter the screw-threaded opening in the top of the body 19. A wick-tube 23 passes through the tank 20 and projects some distance above it, and at one side of the wick-tube is a series of vertical slots 24. An opening 25 in the water-tank provides means whereby it may be filled.

The reference-numeral 26 indicates the usual chimney-support of a lamp, and I have provided a rest against the under surface of the chimney-support and to incline downwardly and inwardly to a point adjacent to the wick-tube. This part (indicated by the numeral 27) is provided with a perforation 28 and also with a slot 29, through which the wick-regulating means (hereinafter described) may be admitted. This device obviously will aid in preventing a draft or current of air from blowing upon the flame to such a degree as to cause the volume of flame to vary or flicker, and yet sufficient air is provided to produce perfect combustion.

The reference-numeral 30 indicates a rod pivoted to the lever 15, extended downwardly through the incubator-body to a point adjacent to the lamp. At its lower end is a plate 31, having sharpened projections 32, which projections are designed to pass through the slots 24 in the wick-tube. Obviously when the lever 15 is raised or lowered the lamp-wick is correspondingly moved.

The reference-numeral 33 indicates a lever fulcrumed on top of the incubator-frame and having one end projected upwardly in position to be engaged by the lever 15, and the other end of the lever 33 is projected upwardly and laterally and is provided on its end with a cap 34, designed to cover an escape-pipe 35, leading through the incubator-frame. The said cap is normally held in engagement with the top of the pipe 35 by gravity, and when the lever 15 is lowered by the action of the thermostat the said cap is raised above the pipe 35. The numeral 36 indicates a guide fixed to the top of the incubator-frame to limit the movements of the lever 15.

In practical use and assuming that the parts of the incubator are assembled as shown in the drawings the lamp may be connected therewith as follows: The chimney is first
5 removed and then the water-chamber 20 is inserted between the blocks 17 with its under surface resting upon the shoulders 18. Obviously when this part is moved to its inner limit it will engage the cross-block, and
10 thereby securely hold it in position supporting the lamp-body, and, furthermore, the wick-tube, having been firmly fixed to the tank, provides means whereby the slots of the wick-tube will always be in position to re-
15 ceive the toothed blade 31, and the lamp may be withdrawn and replaced without in any way affecting the adjustment of the blade 31 with relation to the wick-tube. After the lamp is in position the chimney may be ap-
20 plied through the interior of the incubator. When the device is ready, the operation is in the usual manner.

Having thus described my invention, what I claim, and desire to secure of the United States by Letters Patent therefor, is— 25

The combination with an incubator and a thermostat, of a fork capable of vertical movement only, connected with the thermostat, a lamp-body, a flat wick-tube slotted on both sides, and detachably connected with 30 the body, a slotted guard surrounding the wick-tube, said slots being designed to receive the fork, a guide having straight sides fixed to the tube, and a track or support designed to receive said guide fixed to the in- 35 cubator, whereby, when the guide is placed in the track the wick-tube will be held in such position that when farther advanced the fork will enter the slots therein, substantially as and for the purposes stated.

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Witnesses:

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