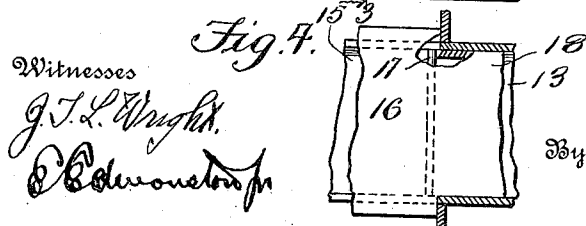
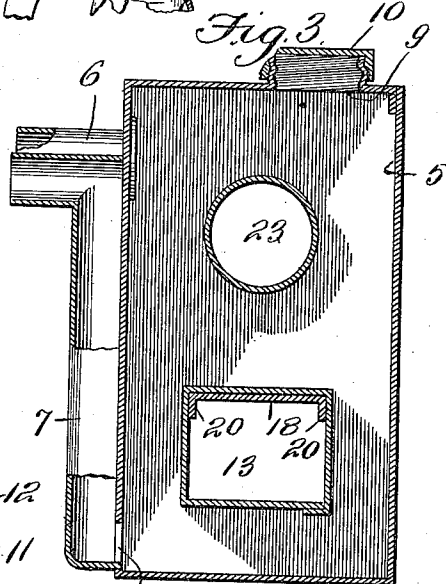
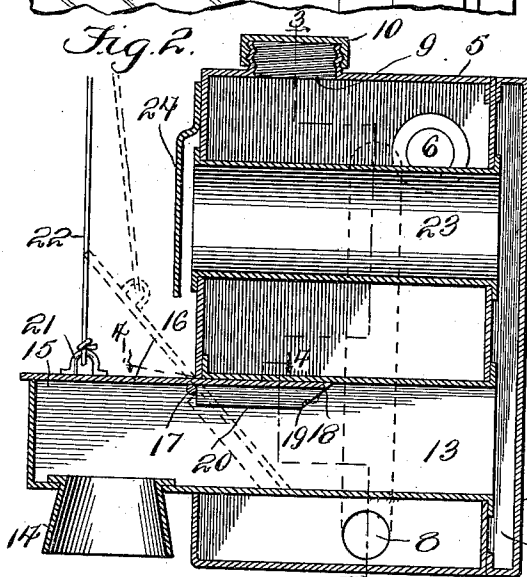
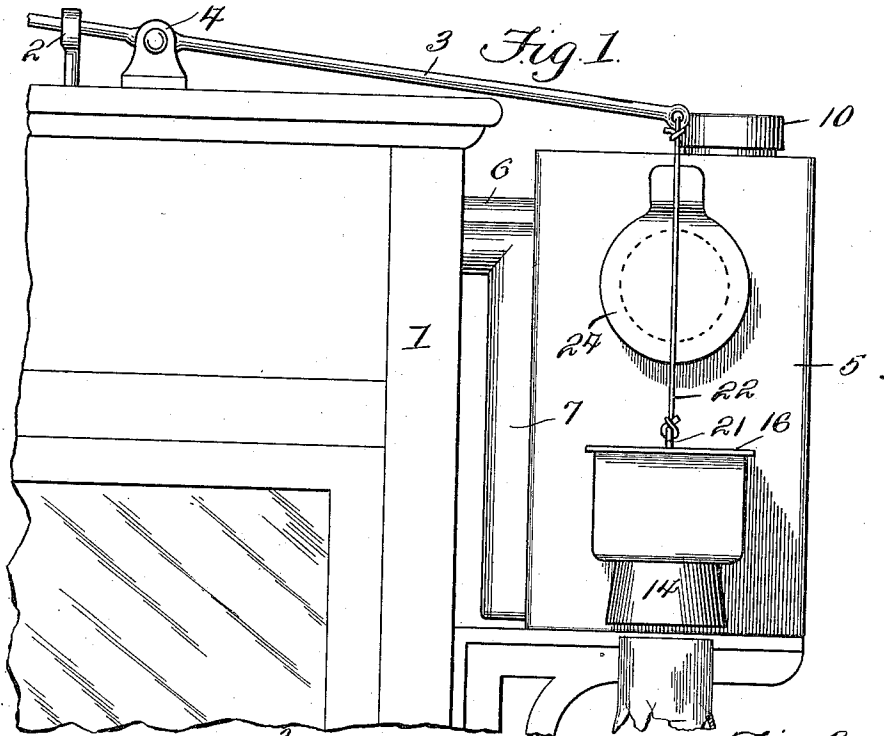


J. A. PERRIN.
 INCUBATOR HEATER TANK.
 APPLICATION FILED DEC. 31, 1910.

1,041,508.

Patented Oct. 15, 1912.



Witnesses

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UNITED STATES PATENT OFFICE.

JOHN A. PERRIN, OF FARGO, OKLAHOMA.

INCUBATOR HEATER-TANK.

1,041,508.

Specification of Letters Patent.

Patented Oct. 15, 1912.

Application filed December 31, 1910. Serial No. 600,241.

To all whom it may concern:

Be it known that I, JOHN A. PERRIN, a citizen of the United States, residing at Fargo, in the county of Ellis and State of Oklahoma, have invented new and useful Improvements in Incubator Heater-Tanks, of which the following is a specification.

This invention relates to incubator heating tanks and to dampers for controlling the passage of heat therethrough.

The object of the invention is the provision of a simple, cheaply constructed and efficient heater tank employing a damper which, when acted upon by the usual thermostat, not only permits the escape of the heat but cuts off the supply to the heater in proportion to its movement.

Further objects of the invention will appear as the following specific description is read in connection with the accompanying drawing, which forms a part of this application, and in which:—

Figure 1 is a detail elevation showing the device attached to a portion of an incubator. Fig. 2 is a vertical sectional view thereof. Fig. 3 is a section taken on the line 3—3 of Fig. 2. Fig. 4 is a section taken on the line 4—4 of Fig. 2.

Referring more particularly to the drawing, 1 represents an incubator which is provided with the usual thermostat rod 2 and a damper operating rod 3 connected thereto and pivoted upon the bracket 4 carried at the top of the incubator.

The heater comprises a casing 5 having an inlet pipe 6 led thereinto at the upper portion of the casing and a cold water inlet pipe 7, which communicates with an aperture 8 in the casing, arranged near the bottom thereof. Both the pipes 6 and 7 are connected to the incubator tank, not shown, and the casing is supplied with water through an opening 9 which is closed by a screw cap 10. Secured to the rear side of the casing, and separated therefrom so as to form a compartment 11, is a shield or plate 12. Communicating with the compartment and passing entirely through the casing is an inlet flue 13. This inlet flue extends beyond the casing at one side thereof and is provided with a funnel-shaped chimney 14 arranged to receive the heat from the lamp or other heating device. The upper portion of the flue is provided with an outlet opening 15 which is normally closed by a damper 16 pivoted upon a trans-

verse rod 17. The damper has a rearward extension 18 which lies entirely within the flue 13 and is beveled off at its inner end, as at 19, so as to conform with the bottom of the flue when the damper is raised. The extension is also provided with suitable reinforcing flanges 20. The damper proper is provided with an eye 21 which is connected through an operating rod 3 to a link 22, so that upon the depression of the thermostat rod 2, the outer end of the operating lever will be lifted and the damper 16 raised from its seat. When the damper is raised to full open position, as shown in dotted lines in Fig. 2, the extension 18 cuts off the entrance to the flue 13 and thereby forces all of the heat through the opening 15. After passing through the flue 13 the heat circulates around in the compartment 11 and passes out through the tube 23 which extends entirely through the casing and is out of communication therewith and has its outer end protected by a shield 24 which prevents direct drafts from blowing into the tube.

From the foregoing description, taken in connection with the accompanying drawing, the advantages of the construction and of the method of operation will be readily apparent to those skilled in the art to which the invention appertains, and while I have described the principle of operation of the invention, together with the device which I now consider to be the embodiment thereof, I desire to have it understood that the device shown is merely illustrative, and that such changes may be made when desired as are within the scope of the claim appended hereto.

Having thus described the invention, what I claim as new is:—

An incubator tank heater comprising a casing having inlet and outlet ports arranged adjacent the upper and lower portions of the casing, a member secured to the casing and forming a compartment separate from the casing, an inlet flue and an outlet flue extending transversely through said casing and communicating at one end with the compartment, the inlet flue extending beyond the casing and provided with oppositely arranged heat inlet and outlet ports, a transverse rod mounted in the inlet flue, a damper controlling the entrance of the same proportionately with the control of the outlet port, the damper comprising a flat sheet of metal pivotally

mounted on the said rod at a point approximately central thereof, and said damper having a rearward extension which lies entirely within the said flue and is beveled
5 off at its inner end to conform with the bottom of the flue when the damper is in a raised position.

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

JOHN A. PERRIN.

Witnesses:

JOHN H. HEISERMAN,
JAMES J. JOHNSTON.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."