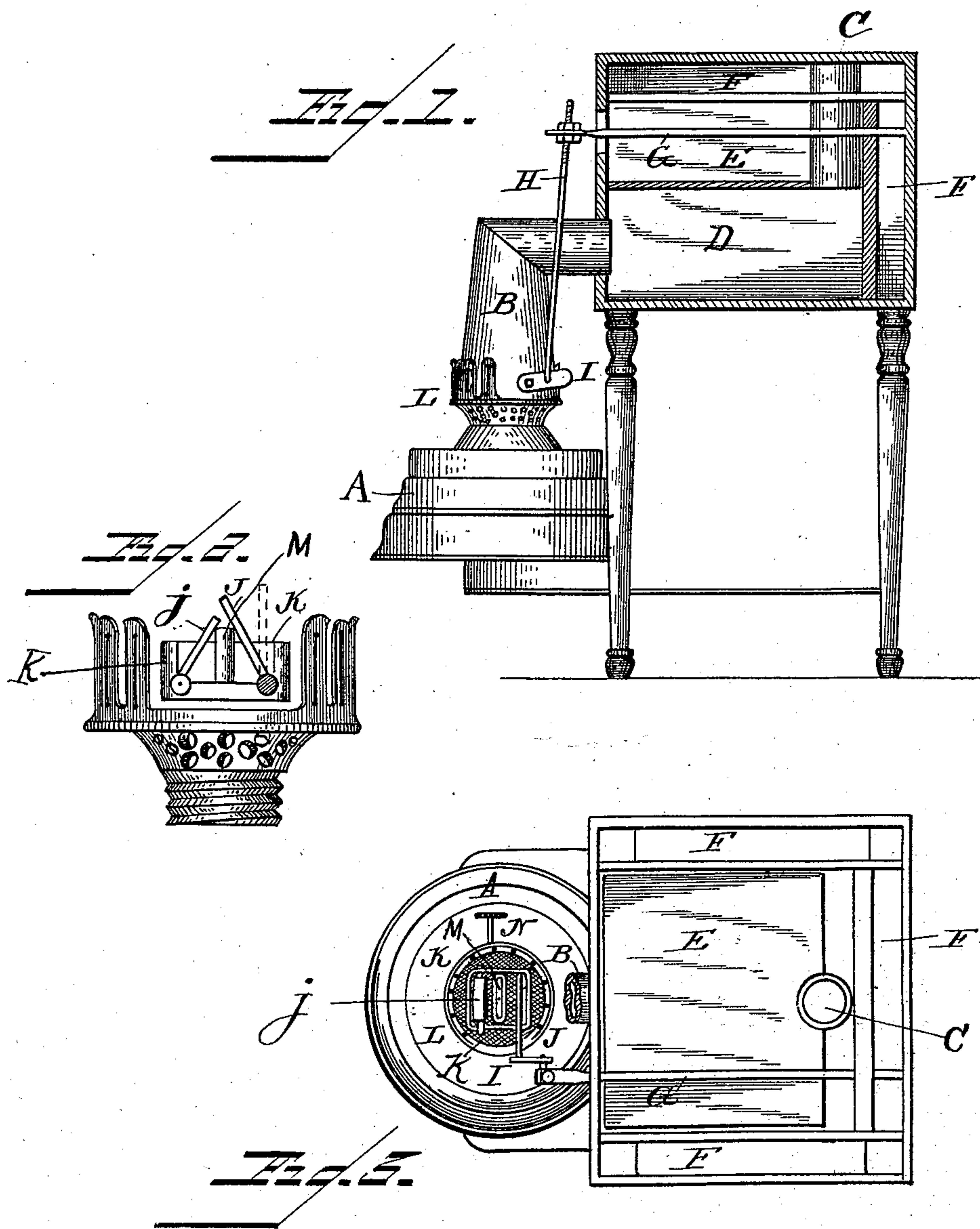


(No Model.)

H. B. SNOOK.
AUTOMATIC HEAT REGULATOR.

No. 516,880.

Patented Mar. 20, 1894.



WITNESSES:

F. L. Curand.
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INVENTOR.

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UNITED STATES PATENT OFFICE.

HARLAND B. SNOOK, OF UNION CITY, OHIO.

AUTOMATIC HEAT-REGULATOR.

SPECIFICATION forming part of Letters Patent No. 516,880, dated March 20, 1894.

Application filed March 30, 1893. Serial No. 469,496. (No model.)

To all whom it may concern:

Be it known that I, HARLAND B. SNOOK, a citizen of the United States, residing at Union City, in the county of Darke and State of Ohio, have invented certain new and useful Improvements in Automatic Heat-Regulators, of which the following is a full, clear, and exact specification.

My invention relates to heat regulators for use in connection with incubators, dwellings and other buildings or places, in which the damper of a stove or heater is automatically actuated by variations in the temperature of the structure or building.

The invention consists in the novel construction and combination of parts hereinafter fully described and claimed.

In the accompanying drawings, Figure 1 is a sectional elevation of an incubator with my improvements applied thereto. Fig. 2 is a plan view, the top and part of the induction pipe being removed. Fig. 3 is a side view of the burner of the heater.

In the said drawings the reference letter A designates a heater of any suitable construction, a coal oil stove being shown in the present instance. This heater rests upon a stand or shelf secured to the supporting legs of the incubator, and is provided with an angular induction pipe B, the end of which communicates with a heating chamber D in a casing F, which chamber is provided with an exit flue C. Above this heating chamber is an egg chamber E, in which is located a thermostat G, which consists of a thin strip of steel riveted to the upper side of a bar of vulcanized rubber, which being of unequal expansion when under the influence of the same degree of heat, causes the thermostat, which is fastened at one end to the casing F, to bend or buckle thus raising its free end. To this

free end of the thermostat is attached a connecting rod H, the lower end of which is pivoted to a crank I, secured to a shaft provided with a rectangular damper J. This shaft is journaled in a rectangular frame K, surrounding the wick tube M, and is located at one side of the latter. Upon the other side of the wick tube is located a similar, but somewhat shorter damper *j*, so that said damper J will overlap the same when the two are brought together as seen in Fig. 3. The shaft of damper *j*, is provided with an operating wheel N, and is operated by hand.

The operation will be readily understood. Variations in the temperature of the heating chamber will cause the damper J to be projected toward or away from the wick tube, causing a corresponding variation of the heat to the induction tube. The hand damper *j*, serves as a regulator for damper J.

Having thus described my invention, what I claim is—

In a heat regulator, the combination with the casing, the heating chamber, the egg chamber located above, the thermostat located in said egg chamber, the induction and education pipes connected with said heating chamber, and the heater, of the rod connected with the thermostat, the crank, the rectangular frames surrounding the wick tube of the heater, the damper shaft journaled in said frame at one side of the wick tube and connected with the crank, the damper secured to said shaft, the hand operated shaft located on the opposite side of the wick tube and the short damper secured thereto, substantially as described.

HARLAND B. SNOOK.

Witnesses:

WILLIAM W. FOWLER,
JAMES F. BOLEN.