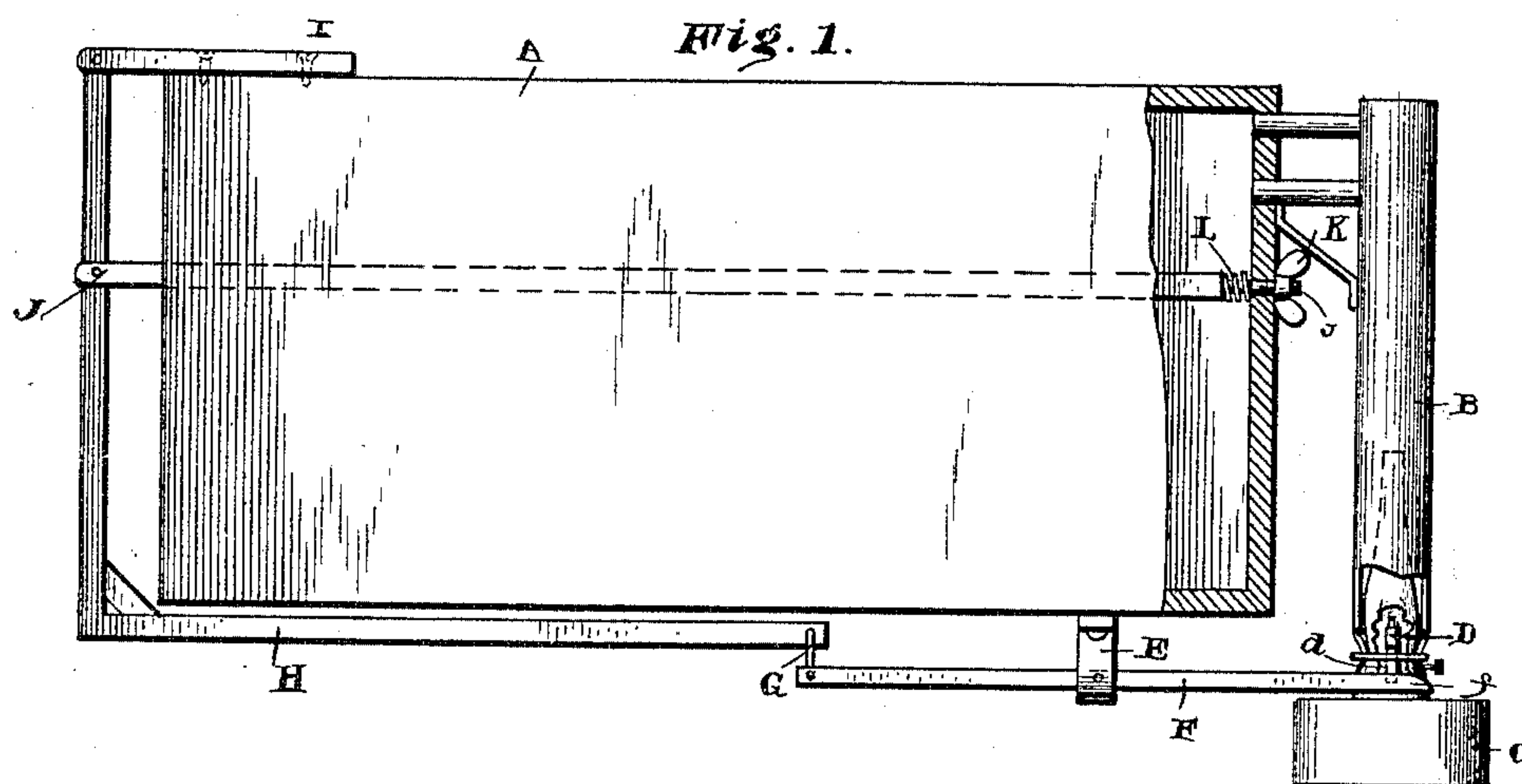


(No Model.)

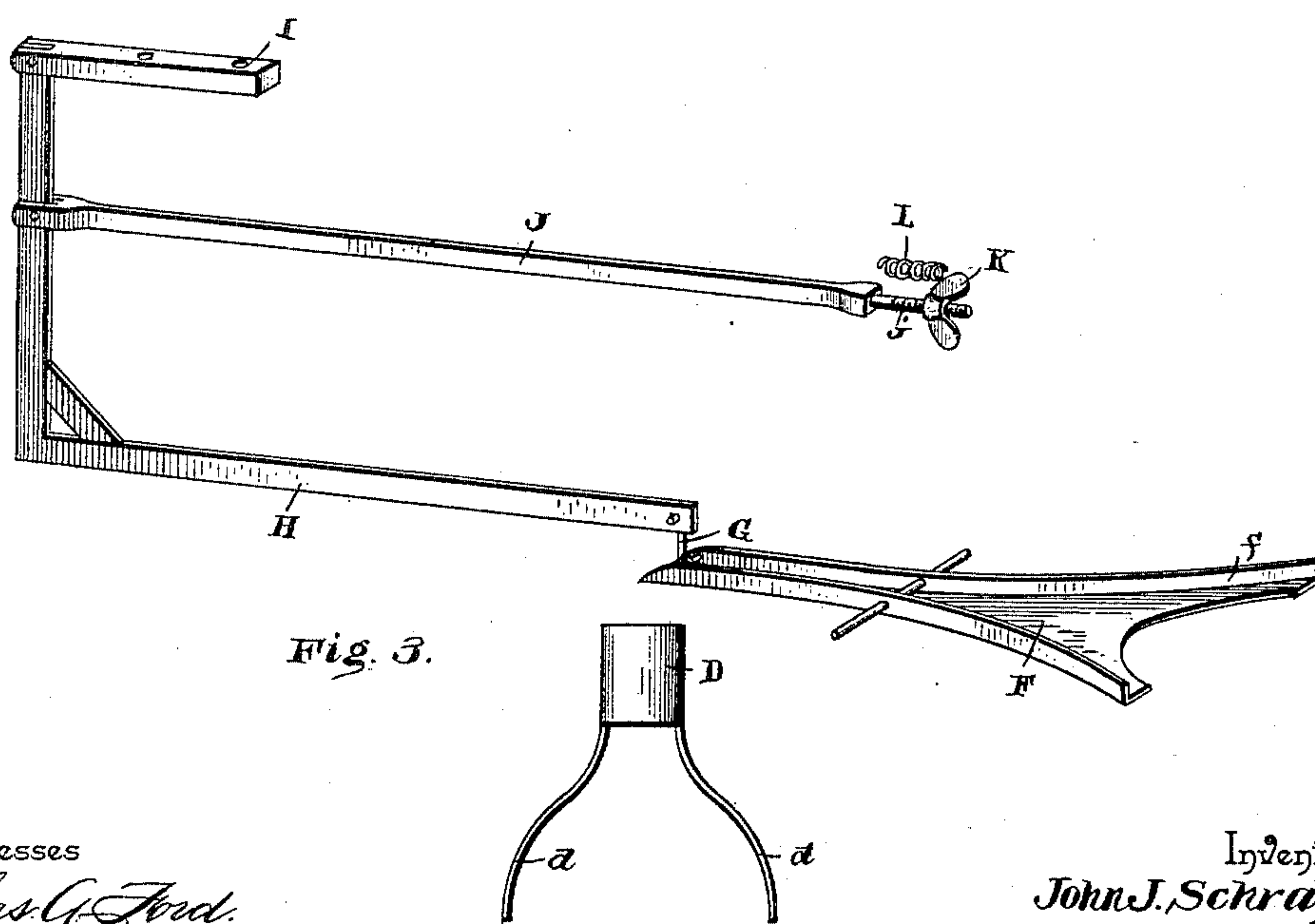
J. J. SCHRAG.  
HEAT REGULATOR.

No. 491,600.

Patented Feb. 14, 1893.



*Fig. 2.*



Witnesses

Chas. G. Ford.

S. P. Volhaupter.

Inventor  
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By *his* Attorneys,

Chas Snowles

# UNITED STATES PATENT OFFICE.

JOHN J. SCHRAG, OF VALENTINE, KANSAS.

## HEAT-REGULATOR.

SPECIFICATION forming part of Letters Patent No. 491,600, dated February 14, 1893.

Application filed July 30, 1892. Serial No. 441,717. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN J. SCHRAG, a citizen of the United States, residing at Valentine, in the county of Harvey and State of Kansas, have invented a new and useful Heat-Regulator, of which the following is a specification.

This invention relates to heat regulators; and it has for its object to provide an improved heat regulating device especially adapted for use in connection with incubators and to this end the invention contemplates a device simple in construction, and operation yet a device which accurately secures the proper regulation of the temperature within the incubator or other object in connection with which the same is used.

With these and many other objects in view which will readily appear as the nature of the invention is better understood, the same consists in the novel construction combination and arrangement of parts hereinafter more fully described, illustrated and claimed.

In the accompanying drawings;—Figure 1 is a side elevation partly in section of an incubator provided with a heat regulator constructed in accordance with this invention. Fig. 2 is a detail in perspective of the regulator removed from the incubator. Fig. 3 is a detail elevation of the wick sleeve.

Referring to the accompanying drawings;—A represents an incubator of ordinary construction, and connected with which at one end is a heater B, of the usual type, and adapted to be heated by the ordinary lamp C arranged therein. The wick tube of the lamp C is surrounded by the sleeve D, depending from which are the opposite legs or arms *d* which are designed to be controlled by the regulator herein described, in order to raise and lower said sleeve over the wick tube of the lamp to diminish or increase the flame therefrom according to the requirements of the incubator. Secured to the bottom of the incubator at a point adjacent to the lamp C is the bracket E, within which is pivotally mounted the horizontal lever F, having a forked end *f*, straddling the burner of the lamp and connected to each of the de-

pending arms *d*, of the regulating sleeve D so that as said lever is moved up and down, the wick tube sleeve is correspondingly raised and lowered. To the other end of the forked lever F is loosely connected the link G, to the upper ends of which is pivotally connected one of the arms of the angle lever H. The said angle lever H corresponds in shape to the bottom and one end of the incubator and has the vertical arm thereof at one end of the incubator pivotally suspended from the supporting arm I, secured to one end and the top of the incubator.

Pivotally connected at one end to the vertical arm of the angle lever H below the supporting arm I is the adjustable thermostatic bar or rod J. The said thermostatic bar or rod J extends longitudinally through the incubator from its connection with the angle lever and is provided with an opposite threaded end *j*, engaged by the adjusting nut K, working against the outside and one end of the incubator, while arranged upon said thermostatic bar or rod and bearing against the same end of the incubator upon the inside thereof, is the tension spring L, which as the adjusting nut is loosened, forces the thermostatic bar or rod without the opposite end of the incubator and thereby adjusts the movement of the several levers of the regulator. Now it will be readily seen that as the thermostatic bar or rod expands or contracts such expansion or contraction communicates movement to the angle lever, which in turn raises or lowers the sleeve lever and thereby raises and lowers the sleeve to diminish or increase the flame of the lamp as required.

Having thus described my invention, what I claim and desire to secure by Letters Patent is;—

In a heat regulator, the combination with the heating lamp; of the regulating sleeve moving over the wick having depending legs or arms, a horizontal lever pivotally mounted adjacent to the lamp and having a forked end engaging said depending legs or arms, an angle lever pivotally suspended from a suitable point of attachment at the upper



end of its vertical arm, a link pivotally connecting one end of the horizontal arm of the angle lever to one end of said horizontal lever, and an adjustable thermostatic bar or  
5 rod pivotally connected at one end to the vertical arm of the angle lever, substantially as set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

JOHN J. SCHRAG.

Witnesses:

ALLEN MILLER,  
D. S. MARCY.