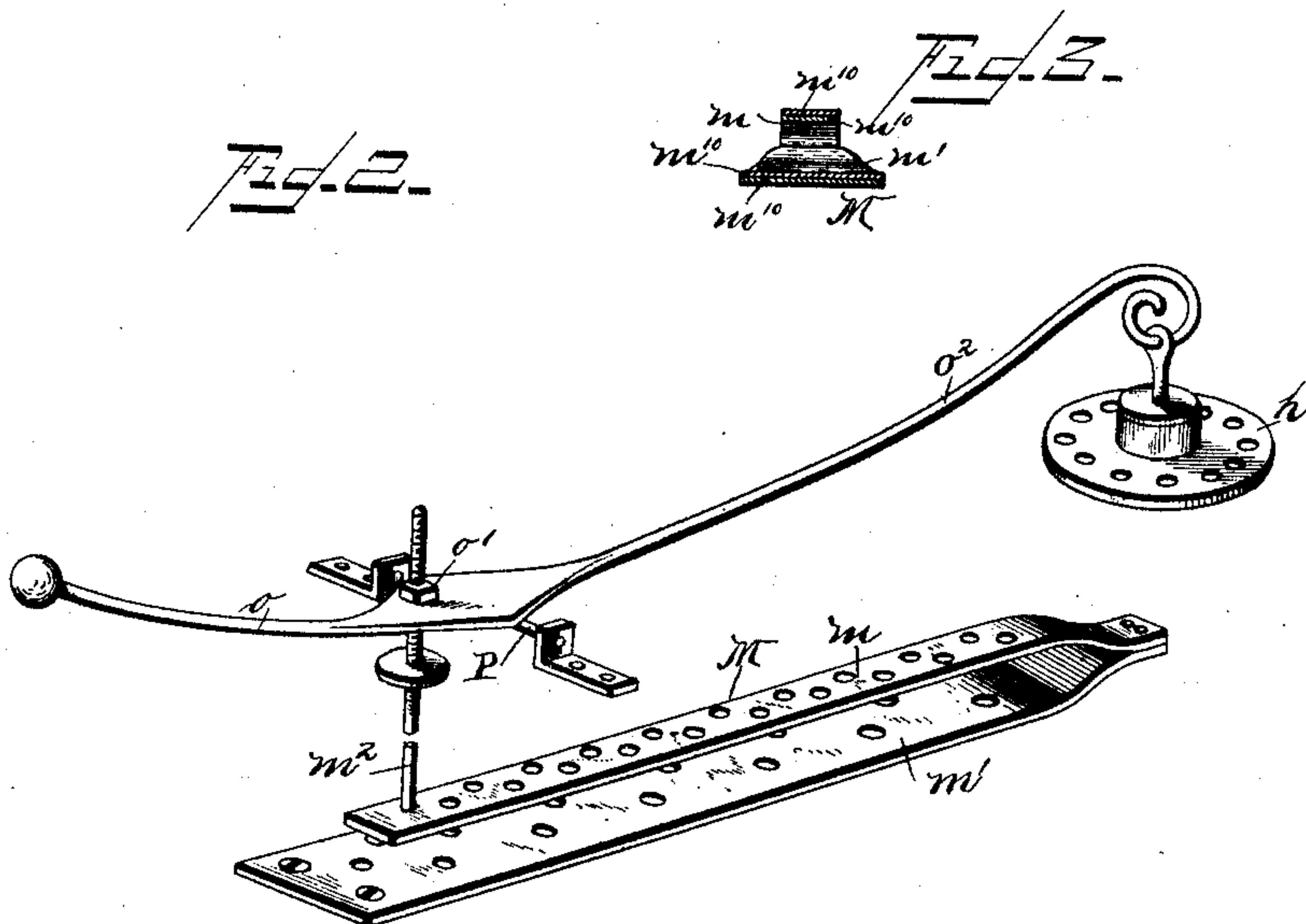
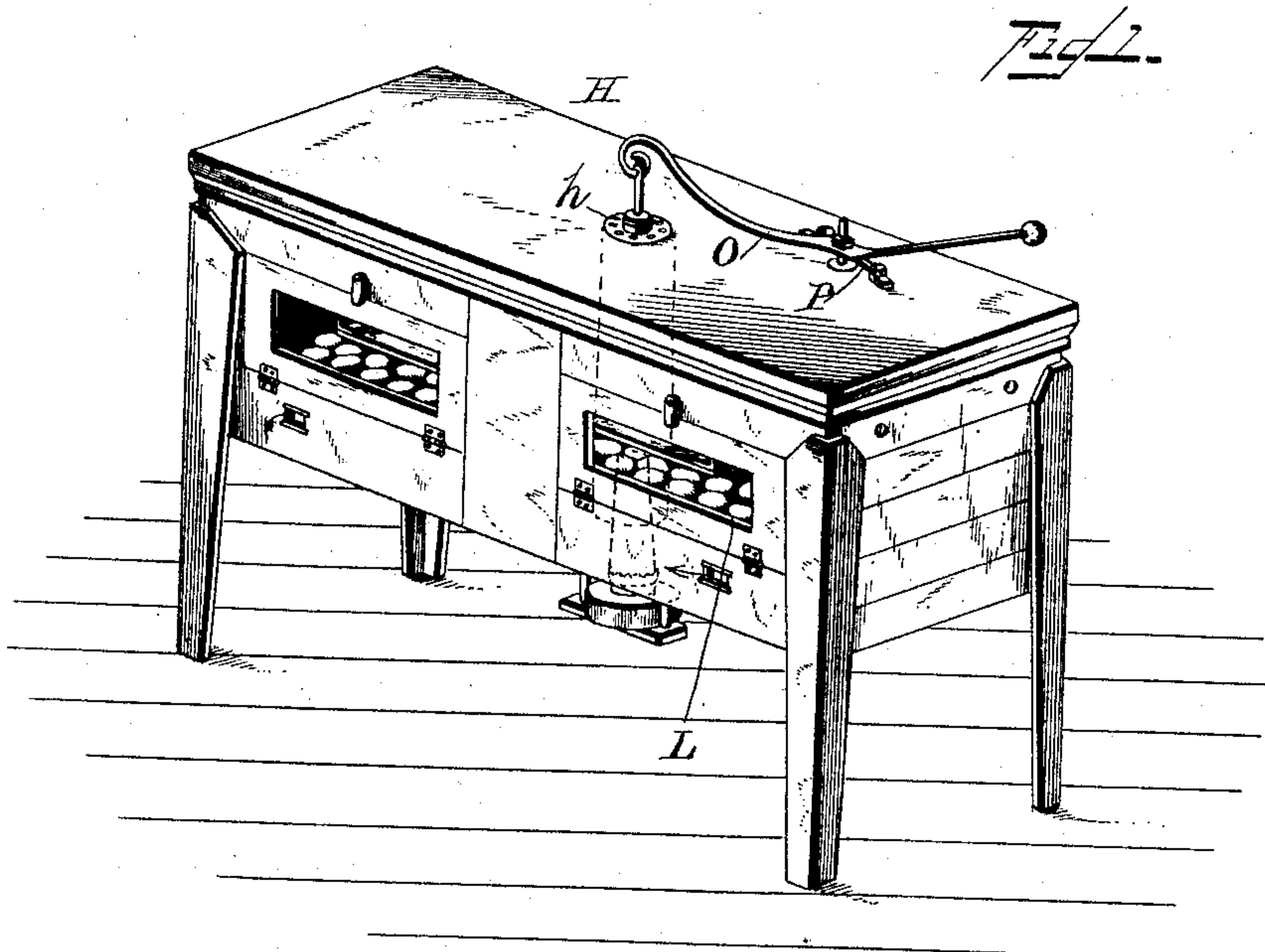


(No Model.)

J. L. NIX.
THERMOSTAT.

No. 412,115.

Patented Oct. 1, 1889.



WITNESSES
F. L. Ourand.
H. A. Smith.

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UNITED STATES PATENT OFFICE.

JAMES LOVE NIX, OF HOMER CITY, PENNSYLVANIA.

THERMOSTAT.

SPECIFICATION forming part of Letters Patent No. 412,115, dated October 1, 1889.

Application filed May 8, 1889. Serial No. 310,054. (No model.)

To all whom it may concern:

Be it known that I, JAMES LOVE NIX, a citizen of the United States, residing at Homer City, in the county of Indiana and State of Pennsylvania, have invented certain new and useful Improvements in Thermostats; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This improvement is more especially, but not exclusively, adapted for use in connection with incubators, and it is in connection with such a device that it is illustrated.

It consists substantially as is hereinafter described and claimed, aided by the annexed drawings, making part of this specification, in which—

Figure 1 is a view in perspective of an incubator having the improved thermostat. Fig. 2 is a view in perspective, upon an enlarged scale, of the thermostat; Fig. 3, a section of the thermostat.

The same letters of reference denote the same parts.

M represents the thermostat in question, it being composed of or having two arms m m' , fastened rigidly together at one end only. Each arm is composed of two plates m^{10} m^{10} , of unequally-expansible metals, preferably iron and brass riveted together. The more expansible metals are upon the outer side. The lower arm is rigidly attached to a suitable support, which is within the egg-chamber, (not shown,) closely above the egg-tray L, and the upper arm has attached thereto a rod m^2 , which I prefer to pass through a hole in the arm and fasten beneath it, so as to allow some play of the parts. The rod m^2 passes upward through the roof of the incubator H. The upper end of the rod m^2 is attached to the short arm o of a lever O, supported upon the fulcrum P upon the incubator. I prefer to cut a screw-thread upon the upper end of the

rod and pass it through a hole in the lever-arm and screw it in place by means of a nut o' , as shown in Fig. 2. This permits of the valve or damper movement being readily regulated. The long arm o^2 of the lever supports the damper n , which hangs loosely from the lever-arm. The short arm o is preferably weighted, so as to almost, but not entirely, balance the long-arm damper. The long arm and the damper together should preferably be heavy enough to seat from its weight when allowed free play. When it is so weighted, the connection between the thermostat and lever need not be inflexible, as it is used entirely for pulling; but when the lever is not so weighted it is necessary to have the connection so arranged as to permit of the thermostat pushing upward as well as pulling downward.

The arrangement of the metal plates composing the thermostat may be reversed; but in that case a corresponding change must be made in its connection with the lever, as it will then have to act upward instead of downward.

I am aware that it is not broadly new in making a thermostat to attach together two pieces of different kinds of metal, the one having a greater degree of expansibility than the other.

What I claim is—

The combination of the two arms m and m' , secured together rigidly at one end, the rod m^2 , attached to the upper arm, with the lever O, having a weighted short arm o and a long arm o^2 , and the damper n , hanging loosely at the end of the long arm, substantially as and for the purposes set forth.

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

JAMES LOVE NIX.

Witnesses:

E. R. SUTTON,
E. E. LOCKARD.