A. A. HOWARD & A. H. LOBSITZ.

HEAT REGULATOR FOR INCUBATORS.

APPLICATION FILED AUG. 1, 1911.

1,038,139.

Patented Sept. 10, 1912.

FIG. 1.

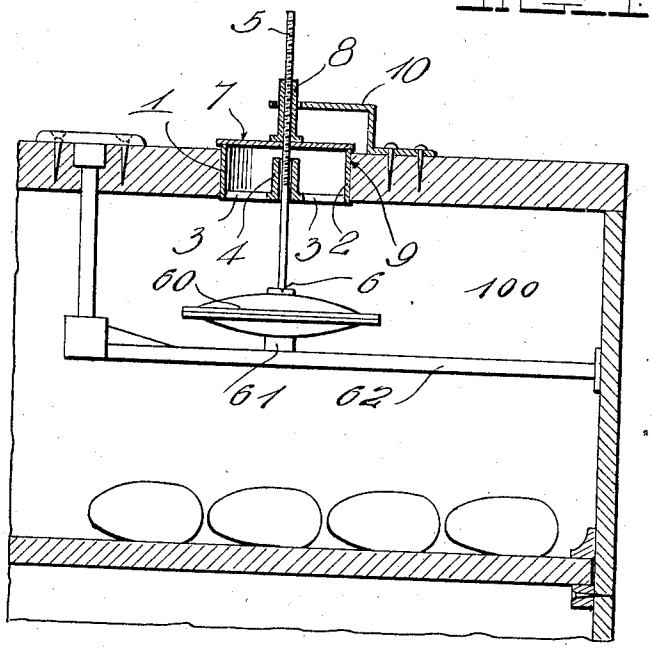


FIG. 2

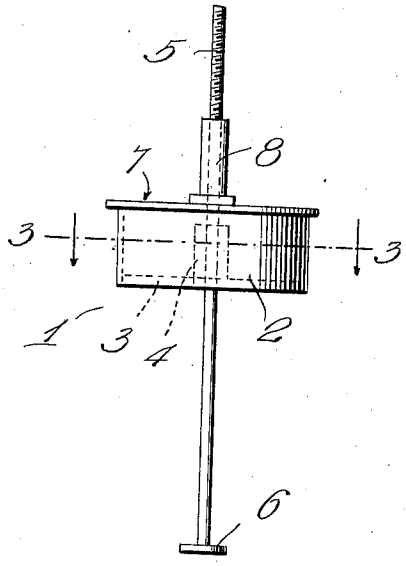
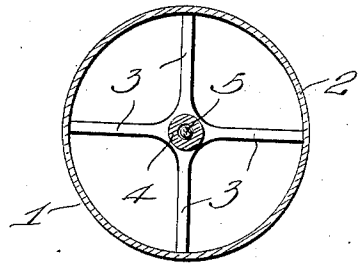


FIG. 3



Witnesses

C. Clemmer

V. M. Somers.

Inventors

A. A. Howard

and A. H. Lobsitz

By A. B. Williamson & Co

Attorneys

COLUMBIA PLANOGRAPH CO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

ALFRED A. HOWARD AND ALBERT H. LOBSITZ, OF PERRY, OKLAHOMA.

HEAT-REGULATOR FOR INCUBATORS.

1,038,139. Specification of Letters Patent. Patented Sept. 10, 1912.

Application filed August 1, 1911. Serial No. 641,830.

To all whom it may concern:

Be it known that we, ALFRED A. HOWARD and ALBERT H. LOBSITZ, citizens of the United States, residing at Perry, in the county of Noble and State of Oklahoma, have invented certain new and useful Improvements in Heat-Regulators for Incubators; and we do 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 invention relates to improvements in thermostatic heat regulators for incubators.

One object of the invention is to provide a simple and inexpensive heat regulator which may be readily applied to incubators and operated by a thermostat to control the temperature and to ventilate the egg chamber of the incubator.

With this and other objects in view, the invention consists of certain novel features of construction, and the combination and arrangement of parts as will be more fully described and claimed.

In the accompanying drawings: Figure 1 is a vertical section through a portion of a ventilator showing the application of the invention; Fig. 2 is a side view of the regulator removed from the incubator; Fig. 3 is a horizontal section on the line 3—3 of Fig. 2.

Our improved incubator comprises a seat or supporting frame 1 consisting of a ring or thimble 2 to the lower edge of which are secured the outer ends of radially projecting diametrically arranged arms 3 which form a spider in the center of which is formed an upwardly projecting guide sleeve or tube 4.

Slidably mounted in the tube 4 is a rod 5 the upper end of which is threaded and which is provided on its lower end with a flat head 6. The threaded upper end of the rod 5 projects a considerable distance above the supporting ring 2 of the seat and screwed upon and supported by said threaded upper end of the rod is a valve plate 7 which is adapted to be raised and lowered out of and into engagement with the upper edge of the seat band 2. On the threaded upper end of the rod 5 is also screwed an elongated lock nut 8 which, when the plate 7 has been adjusted to the desired position on the rod, is adapted to be screwed down into engagement with the plate thereby locking the same to the rod.

In applying the regulator a hole 9 is formed in the top of the incubator and communicating with the egg chamber 100 therein, said hole being disposed above a thermostat 60 of any preferred form, mounted on a base 61 secured upon a cross bar 62 or other suitable support. The hole 9 corresponds in size to the thimble 2 which is fitted and secured in said hole in any suitable manner. When the thimble 2 is thus arranged the rod 5 is adjusted in the valve plate 7 to the proper height whereby when the valve plate 7 is in engagement with the upper edge of the thimble 2, and the passage therethrough into the incubator is closed, the head 6 or lower end of the rod will rest upon the top of the thermostat 60 so that when the thermostat expands beyond a predetermined point, the valve plate will be lifted, thus opening the passage through the top of the incubator and permitting outside air to enter, and heated air to escape from the egg chamber, thus reducing the temperature therein until the thermostat again retracts to the desired extent and permits the valve plate to again close the passage through the top of the incubator. By thus constructing and arranging our improved regulator the temperature of the egg chamber will be automatically controlled and may be maintained at any desired point.

Secured upon the top of the incubator, adjacent to one side of the opening 9 therein, and projecting over said opening, is a guide bracket 10 having in its free end a guide passage of sufficient size to receive the upper end of the elongated lock nut 8 whereby said nut and the rod 5 will be guided in their movements.

From the foregoing description taken in connection with the accompanying drawings, the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of the invention as claimed.

Having thus described our invention what we claim is:

In an incubator a thermostat, a heat regulator comprising a thimble adapted to be in-

serted in an opening in the top of the incubator immediately above the thermostat, a spider in the lower end of said thimble, a guide sleeve formed on the center of said spider, a rod slidably engaged with said sleeve, said rod having a threaded upper end and having its lower end resting upon the thermostat, a valve plate threaded upon the upper end of the rod to open or close the thimble in the top of the incubator, an elongated lock nut threaded on the upper end of said rod and adapted to lock said valve plate in its adjusted position, and a guide bracket secured to the top of the incubator to receive the upper end of the nut and thereby guide the valve rod and plate in their opening and closing movements.

In testimony whereof we have hereunto set our hands in presence of two subscribing witnesses.

A. A. HOWARD.
ALBERT H. LOBSITZ.

Witnesses:
L. J. LOEB,
H. C. GRAVES.