(No Model.)

W. F. PRICE.

BROODER.

No. 343,064. Patented June 1, 1886.

FIG. 1.

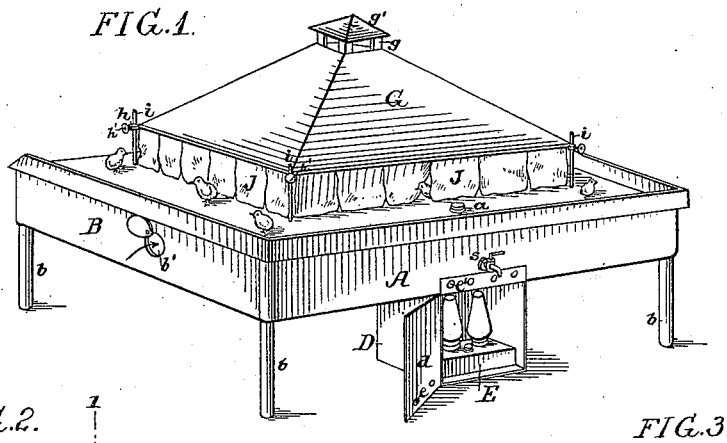


FIG. 2.

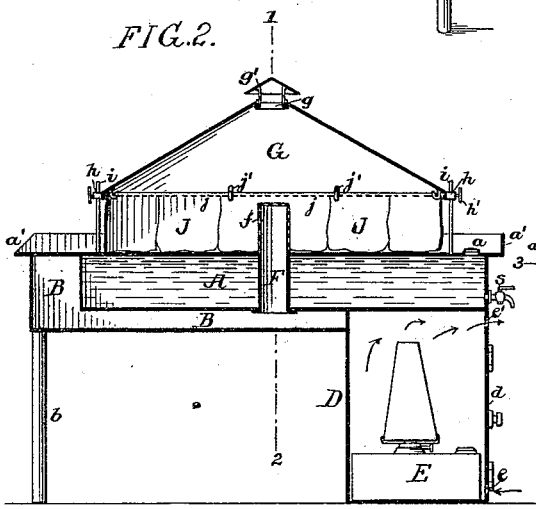


FIG. 3.

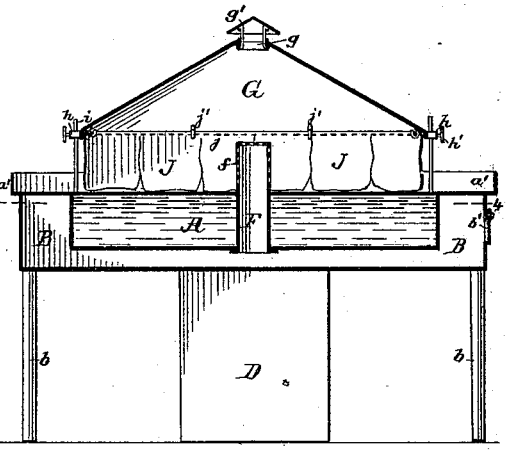


FIG. 4.

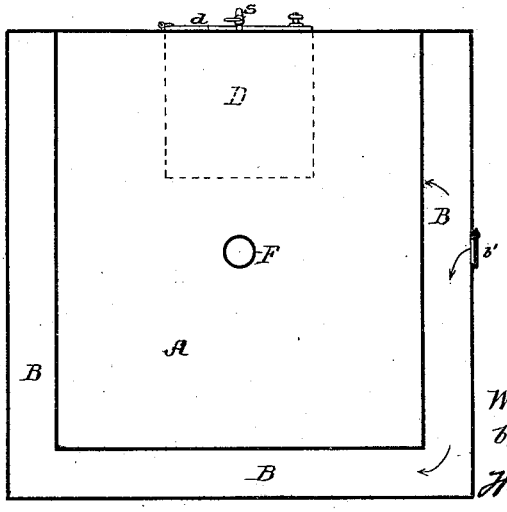
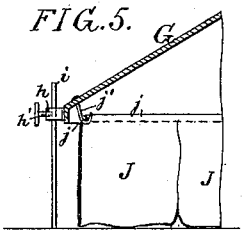


FIG. 5.



Witnesses:
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UNITED STATES PATENT OFFICE.

WILLIAM F. PRICE, OF WEST CALN, CHESTER COUNTY, PENNSYLVANIA.

BROODER.

SPECIFICATION forming part of Letters Patent No. 343,064, dated June 1, 1886.

Application filed April 1, 1886. Serial No. 197,420. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM F. PRICE, a citizen of the United States, residing at West Caln township, Chester county, Pennsylvania, have invented an Improved Brooder, of which the following is a specification.

The object of my invention is to construct a brooder for young chickens, &c., that will be simple and cheap in construction, well ventilated, and uniformly heated; and this object I attain in the manner which I will now proceed to describe.

In the accompanying drawings, Figure 1 is a perspective view of my improved brooder. Fig. 2 is a longitudinal sectional view. Fig. 3 is a transverse sectional view of the same. Fig. 4 is a sectional plan view on the line 3 4, Fig. 3; and Fig. 5, an enlarged sectional view of part of the brooder.

A represents a water-tank, preferably made of sheet-iron, which has a suitable supply-opening closed by a screw-cap, *a*, and has also a discharge-spigot, *s*, at any convenient point.

The top of the tank A constitutes the floor of the brooding-chamber, which is formed by the inclosing-roof G, as hereinafter described. Below the water-tank A, and on three sides thereof, is an air-chamber, B. Immediately beneath a portion of the tank A is a heating-chamber, D, which, however, has no communication with the interior of the air-chamber. The heat may be furnished by a suitable oil-stove or removable lamp, E, in the chamber D, to which air is supplied through holes *e* near the bottom of the door *d*, while the products of combustion pass out through the holes *e'* over the top of the door *d*.

The air-chamber B is provided on the opposite sides with air-inlet openings *b'*, having adjustable valves or dampers, Fig. 1, and through the center of the water-tank passes a vertical pipe, F, which forms a communication between the air-chamber B and the brooding-chamber. The top of the pipe F is inclosed by a suitable perforated cap, *f*, or other device, to prevent the chickens from falling through, and to make the distribution of the heated air into the brooding-chamber more uniform. The brooding-chamber is formed by the inclosing pent roof G, which is supported on vertical rods *i*, and can be adjusted to different heights by means of set-screws *h'*, adapted to lugs *h* on the corners of the pent roof, through which lugs the vertical rods *i* pass, as illustrated in Fig. 5.

From the inner edges of the roof G are suspended a series of flaps or curtains, J, of suitable material, these curtains being sewed or otherwise secured to longitudinal wires or rods *j*, suspended from hooks *j'* on the inner side of the roof, near the edge. These hooks *j'* permit the rods *j* to be readily detached, so that the curtains may be taken off and cleaned when desired, or replaced by new ones.

In the center of the top of the roof is an outlet-opening, *g*, having supported a slight distance above it a cap or cover, *g'*, the whole forming a ventilating-outlet. This cap *g* is vertically adjustable, so as to vary the size of the outlet, and so permit a regulation of the draft and ventilation.

The roof G is somewhat smaller than the brooding-floor, as illustrated in the drawings, so that there is all around the edge of the brooding-chamber an open platform for the chickens to walk about on, outside of the brooding-chamber; and a rail, *a'*, is provided on three sides of this platform to prevent the young chickens, sand, feed, &c., from falling over the edge. The fourth or rear side of the platform is left open, so that an inclined plane may be connected thereto, leading to the ground, in order that the chicks may descend. The whole device is supported on suitable legs, *b*.

The lamp or other device in the chamber D heats the water in the tank A, and the latter in turn heats the air in the surrounding chamber B to the desired temperature, without, however, depriving it of its moisture, as the products of combustion from the chamber D escape into the atmosphere instead of into the air-chamber B. The air entering the chamber B through the openings *b'*, being thus heated by the water-tank, passes up through the pipe F into the brooding-chamber, whence it passes out through the ventilator-opening at the top. By this means a complete circulation is kept up and perfect ventilation provided with a constant supply of pure warm air, while the floor of the brooding-chamber is uniformly heated by the water-tank immediately below it.

I am aware that brooders have heretofore been made with hot-air chambers or water-tanks below the brooding-chambers, which

have been provided with roofs having curtains. I do not wish to claim these features, broadly, therefore; but

I claim as my invention—

1. The combination, in a brooder, of the closed water-tank, surrounding air-chamber, and heating-chamber, with a brooding-chamber immediately over the water-tank and a pipe, F, passing through the water-tank from the air-chamber directly into the brooding-chamber, substantially as described.

2. The combination, in a brooder, of a water-tank, A, and brooding-chamber, with an air-chamber, B, surrounding said tank A on three sides and part of its bottom, and a heating-chamber immediately beneath the remaining part of the water-tank, substantially as set forth.

3. The combination of the water tank, heating-chamber, and air-chamber with a brooding-chamber communicating with the air-chamber, and having a pent roof, G, provided with a ventilator, g', substantially as and for the purpose set forth.

4. The combination, in a brooder, of a water-tank, air-chamber, and heating-chamber, with cover G, having detachable curtains J, substantially as specified.

5. The combination, in a brooder, of a water-tank, air-chamber, and heating-chamber, with a cover, G, having curtains J, hooks j', and carried by rods adapted to the hooks, substantially as and for the purposes set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

WM. F. PRICE.

Witnesses:
J. W. THOMPSON,
H. J. BRANSON.