2 Sheets--Sheet 1.

C. C. WESTON.

Incubator.

No. 161,722. Patented April 6, 1875.

FIG 1.

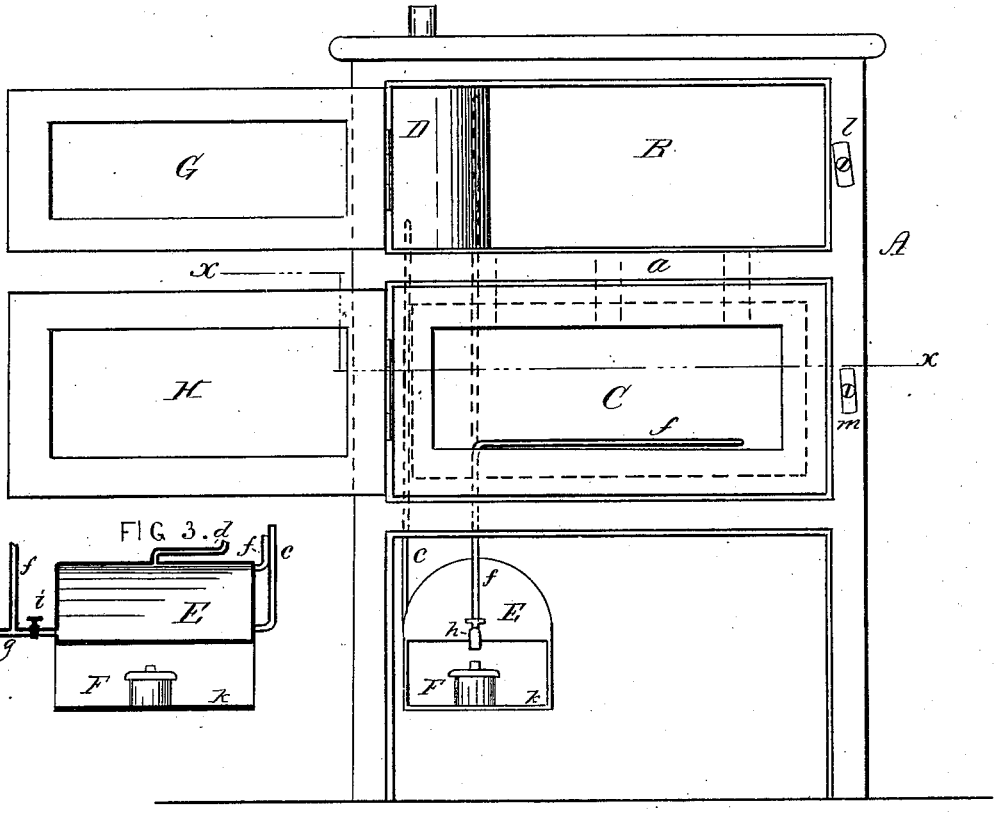
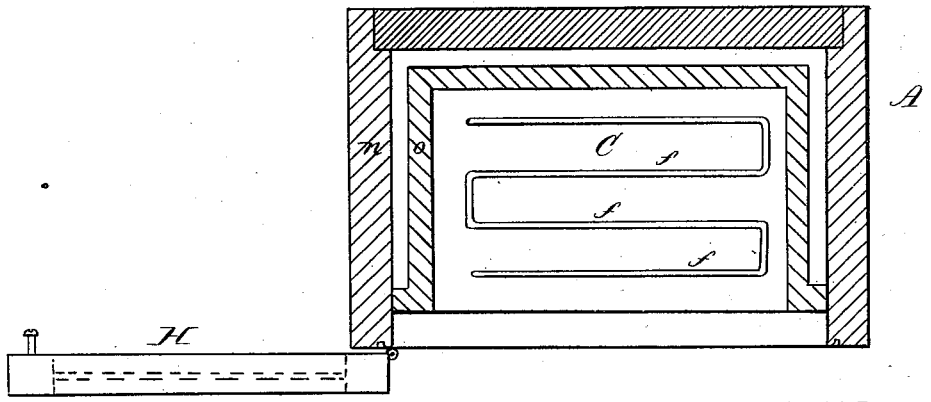


FIG 2.



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THE GRAPHIC CO. PHOTO-LITH. 39 & 41 PARK PLACE, N.Y.

2 Sheets--Sheet 2.

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FIG 4.

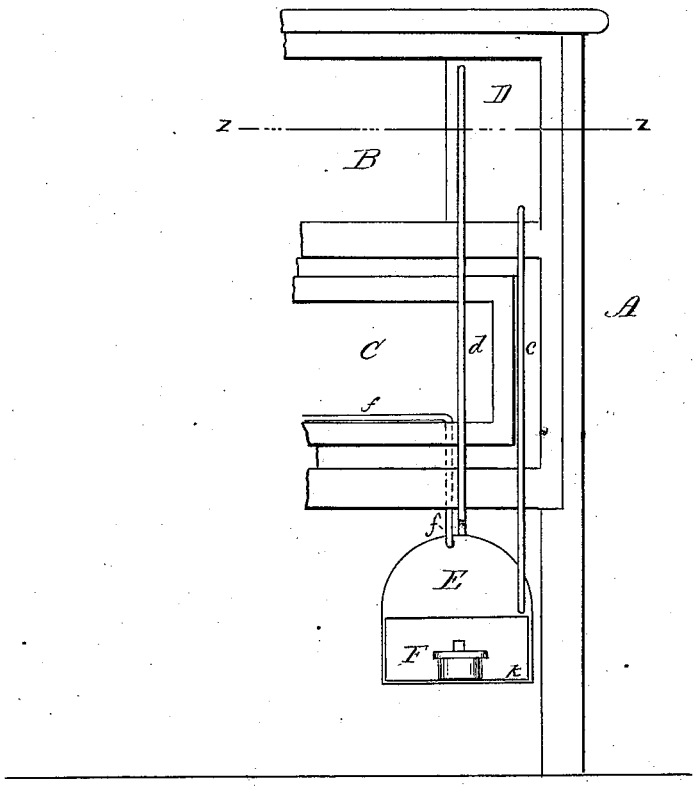
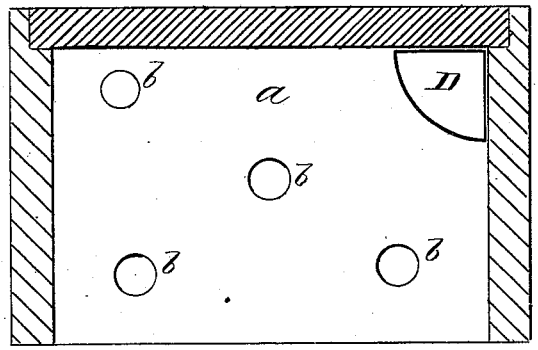


FIG 5



WITNESSES

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UNITED STATES PATENT OFFICE.

CHAUNCEY C. WESTON, OF WASHINGTON, DISTRICT OF COLUMBIA.

IMPROVEMENT IN INCUBATORS.

Specification forming part of Letters Patent No. **161,722**, dated April 6, 1875; application filed March 3, 1875.

To all whom it may concern:

Be it known that I, CHAUNCEY C. WESTON, of Washington, in the county of Washington, District of Columbia, have invented a new and valuable Improvement in Incubators; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawing is a representation of a front elevation of my invention. Fig. 2 is a sectional view of Fig. 1, taken on line *x x*. Fig. 3 is a detached view of the furnace or heating apparatus and the boiler. Fig. 4 is a view of the back part of the apparatus, showing the pipes connecting the boiler with the reservoir; and Fig. 5 a section of Fig. 4 on line *x x*.

This invention has relation to that class of devices known as incubators, for hatching and brooding birds from eggs by artificial heat, and consists in a coil of heating-pipe, through which hot water circulates from a boiler, the same being fed from a reservoir arranged above the hatching-room. My invention also consists, in connection with such heating-pipes and boiler, of a means whereby the temperature of the hatching-room can be regulated by controlling the circulation of water through the pipes. My invention further consists of a safety-pipe, through which the water is allowed to pass from the boiler back into the reservoir.

In the drawings, A is designed to represent the frame of my apparatus, divided by the partition *a* into compartments B C, the lower compartment C being the hatching-room, where the eggs are placed to be hatched, and the upper compartment B the brooding-room, where the young birds are placed for a short time after being hatched; the partition *a* having openings *b*, as seen in Fig. 5, through which the warm air can pass from the compartment C into the compartment B. Situated above the compartment or hatching-room C, and in one corner of the compartment B, is a water-reservoir, D, the same communicating with the boiler E through pipes *c d*, the pipe *c* being the supply-pipe, through which the boiler E is fed, and communicating therewith at the bottom of said boiler and also at the the bottom of the reservoir D. The pipe *d*, which I term a safety-pipe, connects with the boiler at the top, midway from its ends, and at the top of the water-reservoir D. The pipe *f*, through which the water passes after being heated, communicates with the boiler at its top, as shown in Figs. 3 and 4, from whence it passes into the compartment or hatching-room C, and, coiled around, as shown in Fig. 2, it then passes through the lower partitions of the hatching-room and connects with the short pipe *g* between the faucets *h i*. The boiler E is provided with a shelf, *k*, for supporting the lamp F or other suitable heating apparatus. The hatching and brooding rooms are provided with glass doors G H, which are kept closed, when the apparatus is in operation, by small buttons *l m*. The door H has a double glass face, as shown in Fig. 2, also the hatching-room is formed with double walls *n o*, to prevent the outer atmosphere from effecting the temperature therein.

The operation of my apparatus is as follows: The faucet *i* being closed and faucet *h* opened for the escape of air as the boiler is filling, the water is then introduced through a suitable opening in the top of the reservoir D. After the water commences to escape from the pipe *f* out through the faucet *h* it is an indication that the boiler E is full and the apparatus ready for use. The faucet *h* is now closed and faucet *i* opened. (The eggs are placed upon cotton or other soft material in the compartment or hatching-room C.) The lamp F is now lighted, or such other heating device as may be employed. As the water becomes heated in the boiler D an intestine motion takes place, which causes the hotter particles to pass up through the pipe *f*, around the coils of said pipe, where it becomes cooled, and returns to the boiler through the short tube *g*.

To regulate the temperature of the hatching-room C, it is only necessary to partially cut off the flow of water as it passes back into the boiler E, which is accomplished by simply turning the faucet *i*.

If at any time there should become too great a pressure on the boiler, the water has means of escape back into the cold-water reservoir

D through a safety-pipe, *d*, thereby preventing the possibility of any accident from the bursting of the boiler.

Having now fully described the construc- and operation of my invention, what I claim, and desire to secure by Letters Patent, is—

1. In an air-incubator, the reservoir D, arranged above the hatching-room C, and communicating with the boiler E through pipe *c*, as specified.

2. In an air-incubator, the combination, with the boiler E and reservoir D, of the safety-pipe *d*, substantially as and for the purpose set forth.

3. In an air-incubator, the combination, with the boiler E and heating-pipes *f*, of the means, substantially as herein described, whereby the temperature of the hatching-room can be regulated by controlling the circulation of the water through the heating-pipes, as set forth.

4. The reservoir D, boiler E, lamp F, and pipes *c d f*, and the pipe *g*, provided with faucets *h i*, the whole combined and arranged to operate as specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

CHAUNCEY C. WESTON.

Witnesses:

J. GALES MOORE,

GEO. H. B. WHITE.