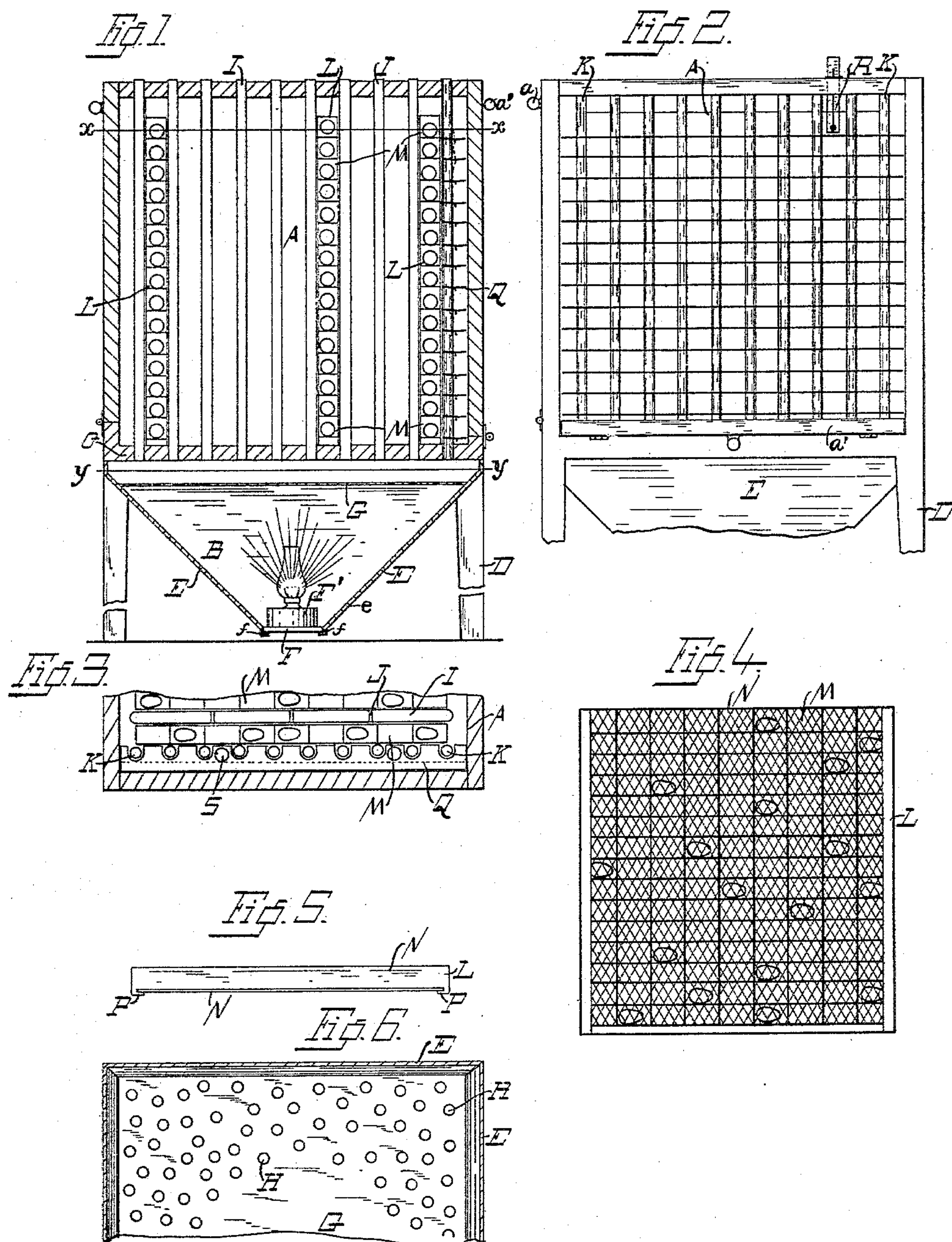


(No Model.)

F. R. BROWN.  
INCUBATOR.

No. 571,553.

Patented Nov. 17, 1896.



Witnesses:  
Ferd. A. Otto.  
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# UNITED STATES PATENT OFFICE.

FREDERICK R. BROWN, OF WAUKESHA, WISCONSIN.

## INCUBATOR.

SPECIFICATION forming part of Letters Patent No. 571,553, dated November 17, 1896.

Application filed September 28, 1895. Serial No. 563,983. (No model.)

*To all whom it may concern:*

Be it known that I, FREDERICK R. BROWN, a citizen of the United States, residing at Waukesha, in the county of Waukesha and State of Wisconsin, have invented new and useful Improvements in Incubators, of which the following is a specification.

My invention relates to improvements in incubators.

The object of my invention is to provide for a uniform distribution of heated air through a series of vertically-arranged pipes, between which the egg-chambers are located in vertically-disposed cases, whereby air may be efficiently utilized as a heat-conveying agent, thus greatly cheapening the construction of the incubator over the cost of incubators with water tubes or chambers.

In the following description reference is had to the accompanying drawings, in which—

Figure 1 is a section view, drawn on a vertical plane, extending through the center of the incubator from front to rear. Fig. 2 is a front view of the egg-chamber with the door opened. Fig. 3 is a partial plan view of the interior with the top removed on section-line X X of Fig. 1. Fig. 4 is a front view of one of the egg-cases. Fig. 5 is a top view of the same. Fig. 6 is a partial plan view of the top of the heating-chamber, the egg-chamber being removed, on the line y y of Fig. 1.

Reference-letters are used consistently throughout the several views.

My incubator is divided into two chambers, the upper or egg chamber A and the lower or heating chamber B, the two chambers being separated by the floor C and supported upon the legs D.

The heating-chamber B is shaped like an inverted truncated pyramid. The sides E converge downwardly to the sliding lamp-platform F, and the upper portion of the chamber is provided with a deflector G, having perforations H near its outer edges to permit the upward passage of the heated air. The platform F is supported in guides f, and when withdrawn permits the insertion of the lamp F' into the chamber. Small openings e admit air to this chamber from the exterior. Vertically-disposed air-passages I communicate at regular intervals from the portion

of the heating-chamber above the deflector through the chamber A to the exterior. These passages are elongated in shape, as best shown in Fig. 3, and are provided with the transverse strengthening-partitions J, except that at the front of the chamber the tubes K are substituted for the passages I to permit the escape of the chickens, as herein- after explained.

L are the egg-cases, adapted to fit removably between the air-passages I. Each is divided into the rectangular egg-compartments M and covered front and rear by wire screens N and N', respectively. The front screen N is removable, being formed to slide vertically in guideways P in each edge of the case. It is thus seen that the cases can be separately removed from the incubator at any time through the side door a for the purpose of turning the eggs or shifting the position of the cases from one space to another.

At the front of the incubator and extending between the tubes K are a series of floors or platforms Q, corresponding with the floors of the egg-compartments M and adapted to facilitate the escape of the hatched chickens from the front egg-case through the door a'.

It will be observed that I have provided nine air-passages I and one set of tubes K, thus forming nine spaces for the insertion of the egg-cases L. One of the cases is filled with eggs and inserted in the left-hand space in the incubator every third day, each case being moved forward one space at three-days intervals, thus occupying the front or right-hand space from the twenty-first to the twenty-fourth days. When inserted in the right-hand space, the screen N is removed from the case, thus permitting the chickens to escape to the platforms Q between the tubes K and through the door a', which is frequently opened for the removal of the chickens.

If desired, a door can be provided on each side, also tubes K, thus doubling the capacity.

R is a thermometer adapted to be inserted through small apertures S in the top of the case for testing the heat of the interior.

It will be observed that with this construction the air will rise slowly through the pipes at the moderate temperature required for in-



cubating, and that the egg-cases, being vertically disposed between the pipes, will be kept at a uniform temperature throughout.

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

1. An incubator, consisting of the combination of the upper and lower chambers, the vertically-disposed air pipes or flues leading from the lower chambers through said upper chamber, the removable egg-cases provided with egg-compartments and adapted to fit between said air pipes or flues, the front and side doors for said upper chamber, and the platforms inserted between the pipes adjacent to the front door in planes corresponding with the floors of the egg-compartments, together with a lamp located in said lower chamber, and a deflector above said lamp, substantially as described.

2. An incubator, consisting in the combi-

nation of the upper and lower chambers, the vertically-disposed air pipes or flues leading from the lower chamber through said upper chamber the removable egg-cases provided with egg-compartments and adapted to fit between said air pipes or flues, the removable side screens for said egg-cases, the front and side doors for said upper chamber, and the platforms inserted between the pipes adjacent to the front door in planes corresponding with the floors of the egg-compartments together with a lamp located in said lower chamber, and a deflector above said lamp, substantially as described.

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

FREDERICK R. BROWN.

Witnesses:

E. J. PATTERSON,

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