

(No Model.)

F. J. WIEGAND.  
CHICKEN BROODER.

No. 527,822.

Patented Oct. 23, 1894.

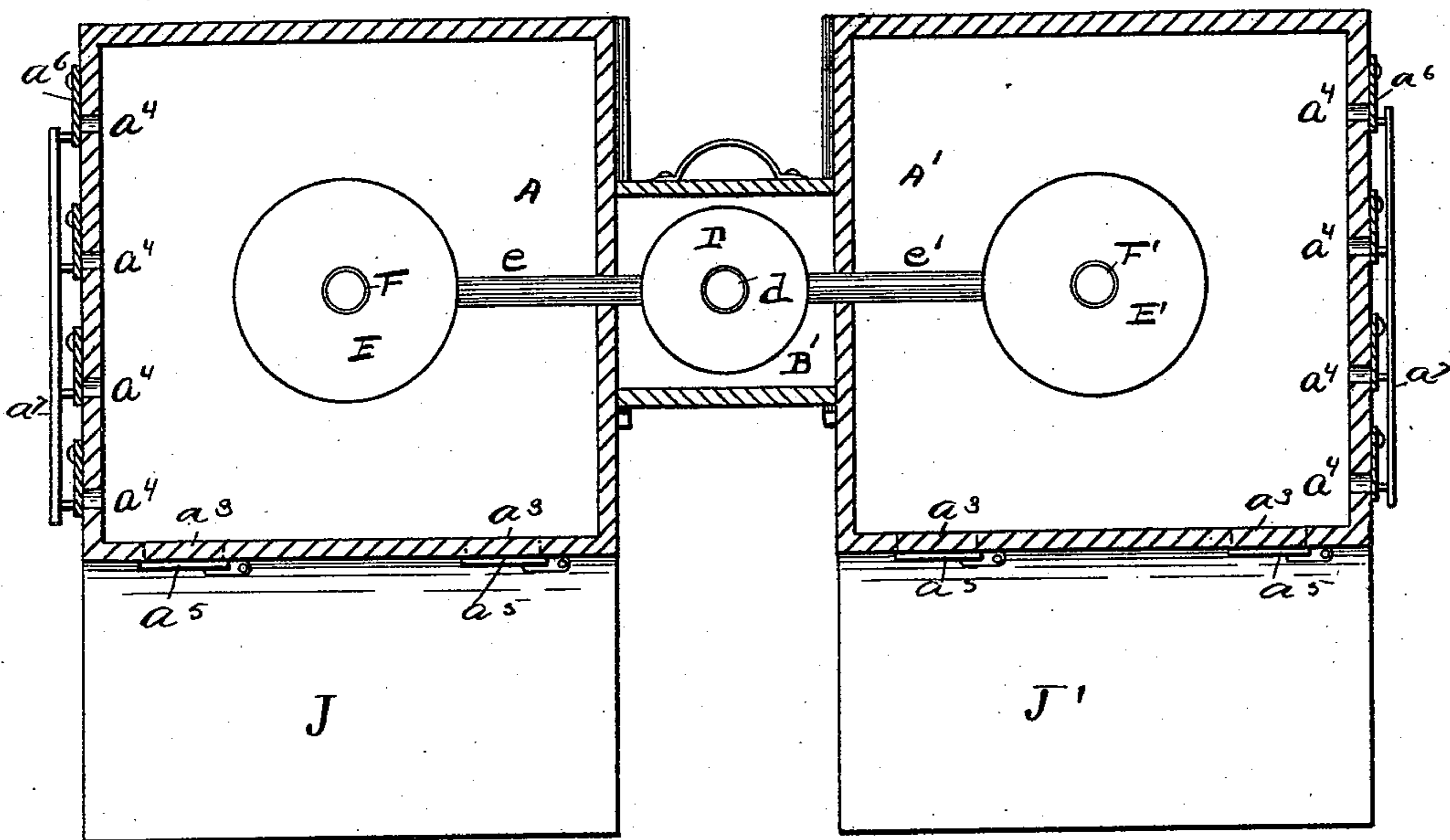
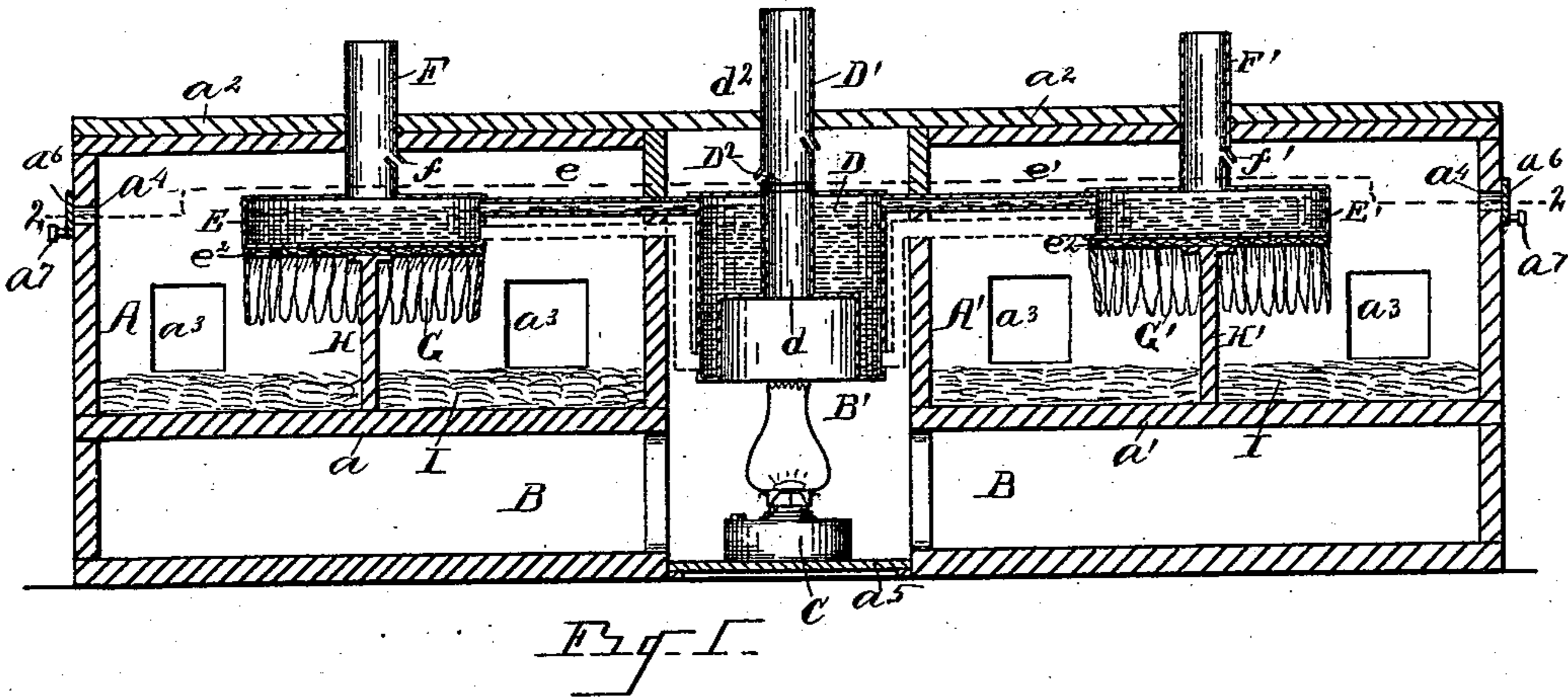


Fig. 2.

WITNESSES.

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# UNITED STATES PATENT OFFICE.

FRANK J. WIEGAND, OF WARREN, MICHIGAN.

## CHICKEN-BROODER.

SPECIFICATION forming part of Letters Patent No. 527,822, dated October 23, 1894.

Application filed November 2, 1893. Serial No. 489,827. (No model.)

*To all whom it may concern:*

Be it known that I, FRANK J. WIEGAND, a citizen of the United States, residing at Warren, county of Macomb, State of Michigan, have invented a certain new and useful Improvement in Chicken-Brooders; and I 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, reference being had to the accompanying drawings, which form a part of this specification.

My invention has for its object an improved chicken brooder whereby the brooding chambers may be effectually and thoroughly ventilated and warmed, whereby the gases from the products of combustion emitted from the heating device will be effectually carried away and prevented from entering the brooding chambers, and also whereby any desired capacity may be attained as the brooding chambers may readily be made of any desired size.

To these ends my invention consists of the construction, combination and arrangement of devices and appliances hereinafter described and claimed and illustrated in the accompanying drawings, in which—

Figure 1 is a vertical longitudinal section illustrating my invention. Fig. 2 is a horizontal longitudinal section on the line 2--2 of Fig. 1.

I carry out my invention as follows:

As shown in the drawings my improved brooder consists of an inclosing case provided with multiple brooding compartments, two being shown in the drawings, by reference letters A, A'. Below these compartments within said inclosing case is a ventilating chamber B which may underlie both brooding compartments. The bottoms of the brooding compartments are indicated at "a" a'. Within the ventilating compartment B, and between the brooding chambers "A," A', is located a lamp or other suitable heating device, indicated at C. Above the heater or lamp C, is a water tank D constructed with a central orifice, as indicated at "d," through which the draft of the lamp chimney passes. A flue D' is engaged upon the upper edge of the flue "d" to carry the gases emitted from the lamp upward through to the exterior of

the brooding chamber. The flue D' is preferably perforated as shown at D<sup>2</sup> within the brooder whereby the circulation of air will effectually ventilate the chamber B, all gases and foul air being drawn, by the heated current, into the flue D' and discharged into the exterior of the chamber. The space between the two brooding chambers may be termed a central chamber, indicated at B', and it will be seen that the perforations above referred to, effectually ventilate this tank chamber and the underlying chamber B in which the lamp or heater is located. The chambers B and B' communicate one with the other, but I would have it clearly understood that no one of these chambers has any communication with the brooding chambers A A' whereby any gases within the chambers B B' can possibly enter into the brooding chambers, any such communication being effectually prevented, so that none of the brooding chambers are liable to be contaminated in the least degree by any foul air or gases from the chambers B B'.

Within each of the brooding chambers, I locate a water tank E E', each communicating with the tank D, as by connecting pipes e e'. Each of the tanks E E' may be connected to the tank D by one or more pipes, as may be desired. Where two pipes are used a more effectual circulation of the water will be produced between the tank D and the tanks E E'. I prefer that each of the tanks shall be provided with pipes F F' communicating with the interior of the respective tanks E E' whereby any steam generated in the tanks E E' may freely escape to the external atmosphere. I also prefer that each of the pipes F F' shall be perforated within their respective brooding chambers, as indicated at f f' whereby any foul air or moisture within the respective brooding chambers will be exhausted therefrom. It will be evident that the escape of steam through the pipes F F' will set up a suction to effectually draw into said pipes, the air within the brooding chambers and thus compels a perfect ventilation of the brooding chambers. Beneath each of the tanks E E' is located a curtain G G' of desired construction, the said curtains depending from said tanks any desired distance. Each of the tanks E E' is cushioned on the

bottom as at  $e^2$  to prevent the chickens from coming in contact with the heated metal of the tank.

The tanks E E' are supported upon posts or blocks H H' resting upon the bottom of the respective chambers. It is customary to fill the lower portion of the brooding chambers with straw or other suitable material, as chaff or cut hay, to elevate the chickens above the bottom and bring them up under the curtains G G'. As the chickens grow in size, this chaff, or other material, indicated at "I" can be diminished in quantity. Access to the brooding chambers may be had through suitable doors  $a^3$ .

I prefer that the brooding chambers should be constructed with ventilating openings or orifices, as indicated at  $a^4$  through which fresh air may be drawn into said chambers. The tank chamber B' is closed at the top as by a covering  $a^2$ . This covering may be common to all the chambers. I prefer that the lamp should be set upon a slide  $a^5$  whereby the lamp can be readily removed for filling and cleaning.

I prefer that the tank D should be constructed with a water leg extending down about the upper end of the lamp chimney, to more effectually utilize the heat of the lamp. I have shown two brooding chambers with their tanks communicating with the central tank D but additional chambers containing additional tanks may also be employed within the scope of my invention.

The entrances  $a^3$  may be provided with doors  $a^5$  whereby they may be controlled. Ways J, J', lead up to said doors.

The ventilator openings  $a^4$  may be controlled by slides or analogous devices  $a^6$ , the slides being preferably connected as by a connecting rod  $a^7$ , whereby they may be simultaneously operated.

What I claim as my invention is—

1. In a chicken brooder, a tank chamber and a water tank located in said chamber, means of heating the water in said tank, a perforated flue passing through said tank and communicating with the exterior of said chamber, brooding chambers located laterally of said tank chamber, an additional water tank located in each of the brooding chambers, the water in all said water tanks heated by a single heater underneath the water tank in the tank chamber, substantially as set forth.

2. In a chicken brooder, a tank chamber, a water tank located within said chamber,

means for heating the water in said tank, brooding chambers located laterally of said tank chamber, an additional water tank in each of said brooding chambers, a cushion on the base of the tanks in the brooding chambers, and a curtain depending from the lower edge of the tanks in the brooding chambers, the tanks in the brooding chambers provided with a flue communicating therewith and with the interior of the brooding chambers and discharging to the exterior of said brooding chambers, the tanks in the brooding chambers communicating with the tank in the tank chamber whereby all of the tanks may be heated by one heating device, substantially as set forth.

3. In a chicken brooder, a tank chamber B', brooding chambers located adjacent to said tank chamber, an underlying ventilating chamber B, a tank D located within the tank chamber constructed with a central opening therethrough, a perforated flue passing through said tank and extending through the case of the brooder, a water tank located within each of the brooding chambers communicating with the tank D, each of said water tanks within the brooding chambers provided with a flue communicating therewith and with the exterior of the brooding chambers, substantially as set forth.

4. A chicken brooder constructed with an inclosing case, a tank chamber within the case provided with a water tank, brooding chambers within the case located laterally of said tank chamber, an additional tank in each of said brooding chambers communicating with the tank in the tank chamber, a post supporting the water tank in each of the brooding chambers, a heating device to simultaneously heat the water in all of said tanks, ventilating flues communicating with the brooding chambers, with the tanks in the brooding chambers, and with the exterior atmosphere, and a ventilating flue passing through the tank in the tank chamber and communicating with the outer atmosphere, the several water tanks so connected as to produce a circulation through said tanks, substantially as set forth.

In testimony whereof I sign this specification in the presence of two witnesses.

FRANK J. WIEGAND.

Witnesses:

N. S. WRIGHT,  
H. R. WHEELER.