

(No Model.)

E. BARNEY.
CHICKEN BROODER.

No. 488,417.

Patented Dec. 20, 1892.

Fig. 1.

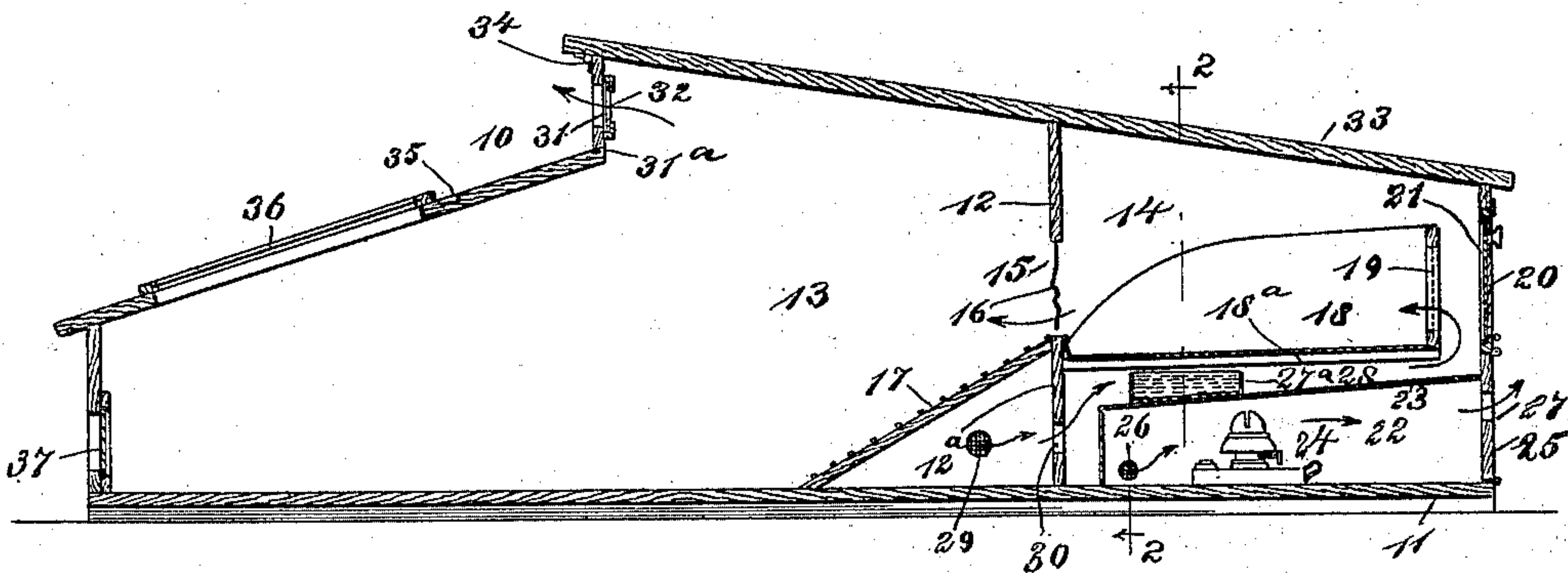
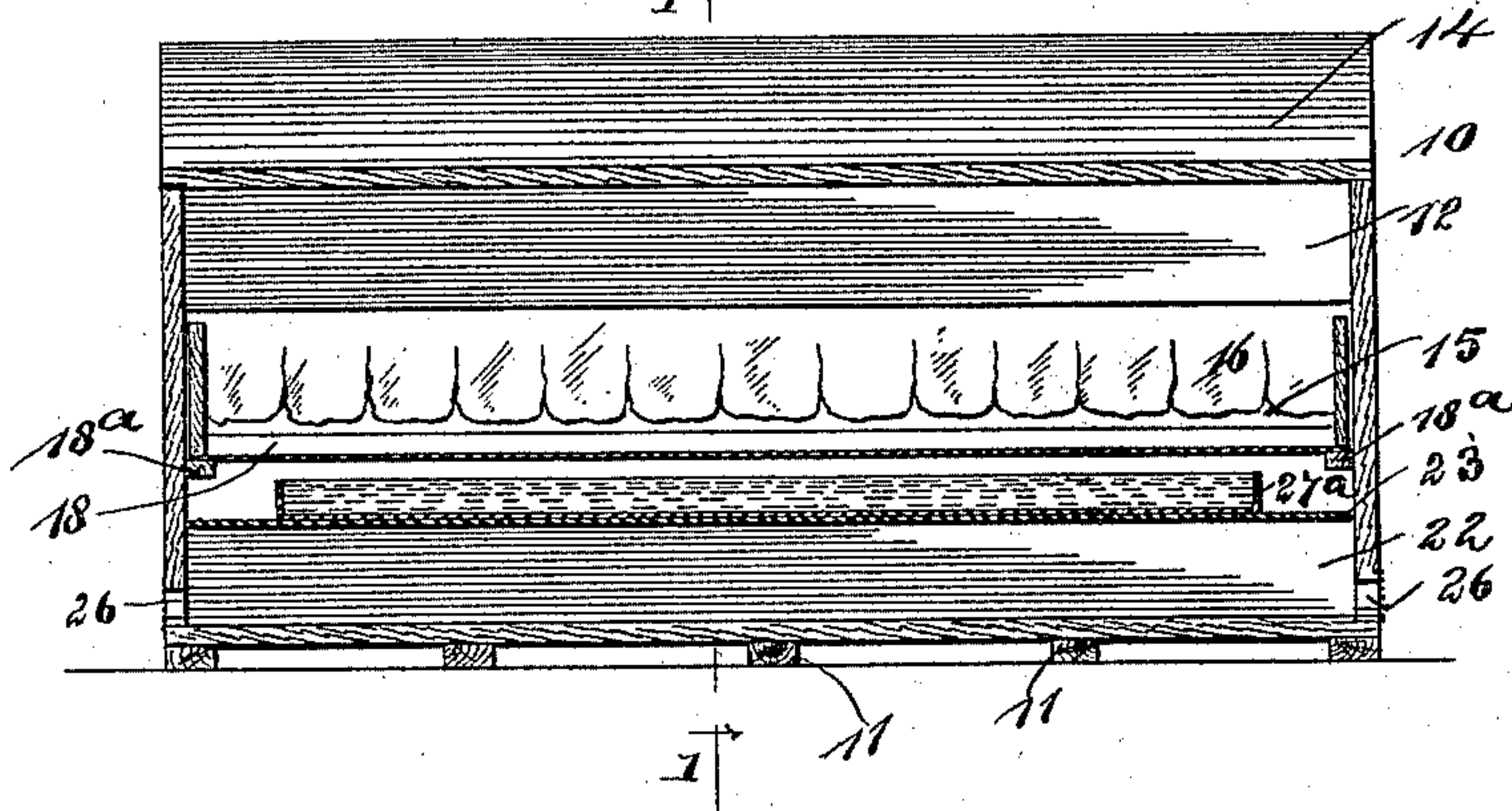


Fig. 2.



WITNESSES:

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EARL BARNEY, OF SCHENECTADY, NEW YORK.

CHICKEN-BROODER.

SPECIFICATION forming part of Letters Patent No. 488,417, dated December 20, 1892.

Application filed June 21, 1892. Serial No. 437,460. (No model.)

To all whom it may concern:

Be it known that I, EARL BARNEY, of Schenectady, in the county of Schenectady and State of New York, have invented a new and
5 Improved Chicken-Brooder, of which the following is a full, clear, and exact description.

My invention relates to improvements in chicken brooders or artificial mothers, such as is shown in Letters Patent of the United
10 States, No. 471,460, dated March 22, 1892.

The object of my invention is to produce a simple and inexpensive brooder, which may be heated by a lamp or lamps, which is constructed in such a way that not a particle of
15 the vitiated air in the lamp room can get into the brooder proper, which is provided with a warm ventilated mother or brooder proper, and which also has a light and airy exercising room in which the chickens may exercise
20 and to which easy access may be had from the brooder proper.

To this end my invention consists in a chicken brooder, the construction of which will be hereinafter described and claimed.

25 Reference is to be had to the accompanying drawings forming a part of this specification, in which similar numerals of reference indicate corresponding parts in both the figures.

Figure 1 is a vertical cross section through
30 the brooder, on the line 1—1 in Fig. 2; and Fig. 2 is a longitudinal section on the line 2—2 in Fig. 1.

The brooder 10, is of the same general shape as the brooder shown in the former patent referred to above, and it is supported upon
35 cleats or timbers 11, to raise it sufficiently from the ground to prevent dampness from affecting it. The brooder is divided longitudinally by vertical partitions 12 and 12^a,
40 into two main compartments 13 and 14, the former serving as an exercising room for the chicks and the latter as the mother or brooder proper. These compartments 13 and 14 communicate by means of an aperture 15, formed
45 between the vertical partitions 12 and 12^a and in the aperture is hung a curtain 16, which retains the main portion of the heat in the compartment 14, but which permits the chicks to pass freely beneath it. An inclined runway 17, extends from the lower edge
50 of the aperture 15 to the floor of the exercising

room 13 and enables the chicks to pass freely from the exercising room to the brooder proper or compartment 14, and vice versa.

In the compartment 14 is a common form
55 of tray 18, on which the chicks are supported and this tray is preferably provided with a sheet metal bottom such, for instance, as galvanized iron, and it has on its back side a screen 19, through which the warm air may
60 pass from the heater below. The tray rests upon the cleats 18^a and may be pushed into and out of the compartment 14, access being had to it through the doors 20 and 21, which
65 are hinged to the side of the brooder, as shown in Fig. 1. The door 20 is of wood or other opaque substance and the door 21 is of glass; this arrangement enables the door 20 to be opened so that the chicks may be inspected without any of the heat escaping, or by
70 opening both doors, the tray may be removed to be cleaned or for any other purpose.

In the bottom of the compartment 14 is a heating chamber 22, which is separated from
75 the main portion of the compartment by a wall 23, preferably of sheet metal such as galvanized iron, and in this chamber is a lamp 24, and more than one lamp may be used if necessary.

In the side of the brooder is a door 25, which
80 opens into the chamber 22 and which enables the lamp to be inserted or removed. The air is supplied to the chamber, to promote combustion in the lamp, through a screen covered opening 26, in the wall of the brooder
85 and the vitiated air escapes through an aperture or apertures 27 in the door 25. Above the chamber 22 and supported upon the wall 23 is an open topped receptacle 27^a, which
90 carries water, and the evaporation of this water provides the necessary moisture for the warm air which rises from the heating chamber and fills the brooder.

A flue 28, is formed between the brooder and the tray 18 above it, through which the
95 heat passes, as indicated by the arrows in Fig. 1. The necessary air inlets to promote a circulation through the brooder are through the screen covered apertures 29, which are arranged in the wall of the brooder, and beneath the runway 17, so that the cold air cannot come in contact with the chicks. From
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the apertures 29, the air passes through holes 30, in the vertical partition 12^a and after passing up through the brooder proper or compartment 14, the surplus warm air escapes
 5 through the aperture 15, thus slightly warming the exercising room 13, and from here it passes outward through the ventilating holes 31, which are produced in a vertical portion 31^a of the brooder roof, and which are covered by
 10 a sliding door 32. The compartment 14 and a portion of the compartment 13 are covered by a swinging roof 33, which is hinged at one edge, as shown at 34, so that it may be swung upward and easy access may be had to the exercising room 13, thus providing means for
 15 cleaning it out conveniently. The exercising room is also covered in part by an inclined roof 35, in which is a window 36, which provides the necessary light, and on one side of
 20 the exercising room is a sliding door 37, which may be opened and through which the chicks may pass in and out of the brooder.

It will be noticed from the above description that provision is made for amply heating
 25 the brooder, that a free circulation of fresh air is provided, that it has the necessary means for charging the air with moisture, and that the air in the heating chamber cannot pass into the brooder.

30 In constructing this brooder, it should be built in such a way that the walls may be easily separated so that it may be taken down and packed into a small space; for this purpose the construction similar to that shown
 35 in my former patent, may be used.

In the drawings and description I have shown and described an individual brooder, but it will be understood that this construction may be applied to brooding houses as well.

40 Having thus described my invention, I

claim as new, and desire to secure by Letters Patent:—

1. A brooder comprising a main coop or structure having communicating compartments, one serving as an exercising room and the other as a mother, an air inlet connected
 45 with the mother compartment and an air outlet opening from the exercising room, a chick-supporting tray arranged within the mother, and a heating chamber arranged beneath the
 50 tray, said chamber having an independent air inlet and outlet and being entirely separated from the mother, and a passage 28 extending from the air inlet of the mother compartment between the lower side of the tray
 55 and upper closed wall of the heating chamber to a space between the rear end of the tray and the adjacent wall of the mother compartment, substantially as described.

2. A brooder comprising a main coop or structure having communicating compartments, one serving as an exercising room and having a suitable door therein and the other
 60 as a brooder proper or mother, air inlets opening into the brooder proper, air outlets opening from the exercising room, a removable
 65 tray arranged within the brooder proper, a heating chamber formed in the lower portion of the brooder proper and entirely shut off from the same, an evaporating pan supported
 70 above the heating chamber and between it and the tray, suitable doors for the heating chamber and for the brooder proper, and independent air inlets and outlets for the heating chamber, substantially as described.

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Witnesses:

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