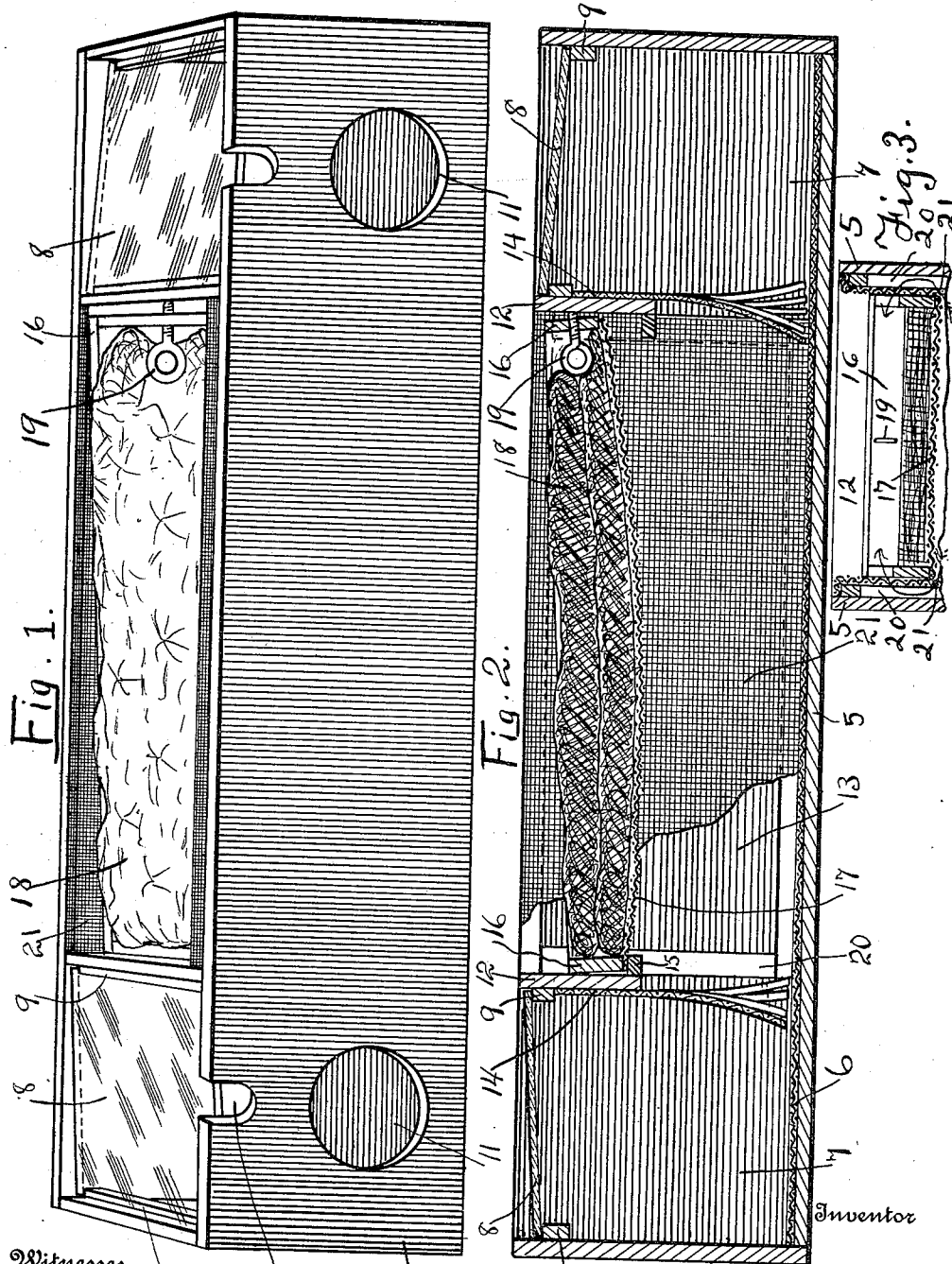


E. W. PHILO.
 FIRELESS BROODER.
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Patented Jan. 2, 1912.



UNITED STATES PATENT OFFICE.

EDGAR W. PHILO, OF ELMIRA, NEW YORK.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, EDGAR W. PHILO, a citizen of the United States, and residing at Elmira, in the county of Chemung and State of New York, have invented certain new and useful Improvements in Fireless Brooders, of which the following is a specification.

This invention relates to improvements in brooders and more especially to that class of such devices commonly known as fireless brooders and in which no artificial heat is employed therewith.

The primary object of the invention is the provision of such a device in a form that will permit very young chickens to readily enter whenever they desire hovering.

A further object of the invention is to provide coop sections within the brooder so arranged in conjunction with the hover section thereof that crowding of the young chickens among themselves within the lower section will be impossible by reason of their ready accommodation within one or the other of the coop sections.

A further object is the provision of coop sections in a brooder that are substantially as light as out-of-doors and an intermediate hover station therebetween provided with a tiltable mattress frame adapted to receive one or more cushions that are capable of supplying sufficient heat to the device to enable its uninterrupted use in weather of all temperatures.

Specific claim is further made as an important part of this invention to the ventilating side linings of the brooder section allowing for free passage of air around the warmth imparting cushions employed therewith.

With these objects in view and others that will appear as the nature of the invention is better understood, the same consists in the novel combination, and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings and pointed out in the appended claims.

In the drawings forming a part of this application and in which like designating numerals refer to corresponding parts throughout the several views, Figure 1 is a front perspective of the device showing all of its parts assembled for use, Fig. 2 is a longitudinal sectional view thereof showing one of the ventilating side members partially broken away, and Fig. 3 is a vertical

transverse sectional view of the device partly broken away and illustrated with the mattress removed.

While the present brooder may be employed in the open air, it is more advisable to use the same within such an inclosure as a coop which will prevent the wind and drafts from directly contacting with the brooder, although the tempering of the atmosphere by such inclosure is not necessary as the protection against cold afforded by the hover is ample. The rectangular box or frame work 5 of the device is preferably provided inside upon the bottom thereof with a water-proof heat insulating lining 6, which may also be extended to any of the unlined sides thereof if desired. Within said frame work there is provided a coop section 7 at each opposite end thereof, both of which are identical and are freely lighted by a glass cover 8 oppositely inclined toward the ends of the device and freely resting upon the cleats 9. U-shaped cut-away portions 10 form openings in the top edge of the box and the glass covers 8 traversing said openings provide a ready means for removing and replacing the same. Beneath said openings 10 and preferably in the same side of the frame work are positioned the coop entrance openings 11. Transverse partition strips 12, of a width less than the height of the brooder walls, partly separate the end coop sections 7 from the intermediate hover section 13, which sections are further separated by the depending slitted fabric curtain 14 preferably made of felt and secured to the outer sides of said partitions 12. Within said hover section and adapted to be supported by the cleats 15 carried at the lower margin of said partitions 12 there is employed a mattress frame 16 having a muslin or other fabric bottom 17. Said mattress frame has the longitudinal sides thereof curved downwardly as shown in Fig. 2 and said frame is adapted to receive any desired number of mattress members or cushions 18, two of which are illustrated in position in Fig. 2 of the drawings and the same are preferably composed of heat insulating material and preferably a mixture of cotton and woolen material.

It being desirable at times to position one end of the warming mattress hover top nearer the bottom of the hover section than the other in order to maintain different tem-

peratures at separate points within the hover, an end of the mattress frame is provided with a thumb screw 19, which is adapted to be brought in contact with the adjacent partition 12 and thus removably secure the mattress frame at any desired inclination or in an adjusted horizontal position.

There is further provided in the present device a novel construction of lining upon the opposite sides of the hover section 13 functionally calculated to afford a perfect ventilation of the hover. Upon the inner faces of said hover sides is flatly provided a rectangular frame work 20 of any desired width and having stretched thereover a fabric covering 21 preferably of coarse muslin. With the accommodation of the mattress frame between said ventilating sides as described, it will be evident that free passage of air is possible from a point in the hover beneath the mattress, through said fabric side 21, up the side of the hover between the fabric and the hover sides and then out through the fabric at a point above the mattress positioned adjacent thereto.

Having in mind the objects desired to be obtained by the present invention, the full and complete operation thereof will be apparent from the above description. The chicks having free access through entrance openings 11 to the coop sections 7 remain therein until the temperature thereof is slightly raised by their own heat and when desiring to be hovered, said chicks will seek entrance through the slitted curtain 14 and enter the hover beneath the adjustable warming mattress roof 18 thereof. Any tendency to excessive crowding within the hover will result in forcing some of the chicks into the coop section at the opposite end of the brooder, so that the injury of very small chicks by being crowded into corners is rendered thereby impossible.

While the forms of the invention herein set forth are believed to be the preferable embodiments thereof, it is nevertheless to be understood that minor changes may be made in form, proportion and in minor details of construction without departing from the spirit and scope of my invention, as set forth in the appended claims.

Having thus described my invention and in what manner the same is designed for

use, what I claim as new and desire to secure by Letters Patent of the United States is:—

1. In a fireless brooder, a rectangular receptacle having a bottom and an open top, transverse partitions therein adjacent each end arranged in the upper portion of the receptacle and of materially less width than the depth of the receptacle, depending flexible curtains secured to said partitions, said partitions and curtains separating the receptacle into end compartments and a central compartment, supports secured to the partitions, a mattress carrying-frame mounted on said supports and of less width than the width of the receptacle, thereby forming spaces between the carrying frame and the inner faces of the receptacle, frames fixed in said spaces, and a fabric covering for said frames whereby ventilation around the mattress is provided.

2. In a fireless brooder, a rectangular receptacle having side openings near each end, transverse partitions in the receptacle of less width than the depth of said receptacle, flexible curtains depending from the partitions, said partitions and curtains dividing the receptacle into two end compartments and a central compartment, a mattress carrying-frame adjustably-supported within the central compartment and of less width than the width of the receptacle thereby providing spaces at each side of the carrying-frame, and ventilating means disposed in said spaces, said ventilating means providing for the passage of air around the mattress.

3. In a fireless brooder, a receptacle divided into communicating compartments, partitions forming said compartments and each comprising a stationary section and a curtain section, a mattress carrying-frame adjustably-mounted in one of said compartments and of materially less width than the width of the receptacle forming spaces between the frame and the sides of the receptacle, and ventilating means mounted in said spaces, whereby passage for air around the mattress is provided.

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

EDGAR W. PHILO.

Witnesses:

E. R. PHILO,

WALTER P. AUSTIN.