

A. P. WARD.

BROODER.

APPLICATION FILED AUG. 20, 1908.

945,483.

Patented Jan. 4, 1910.

2 SHEETS—SHEET 1.

Fig. 1.

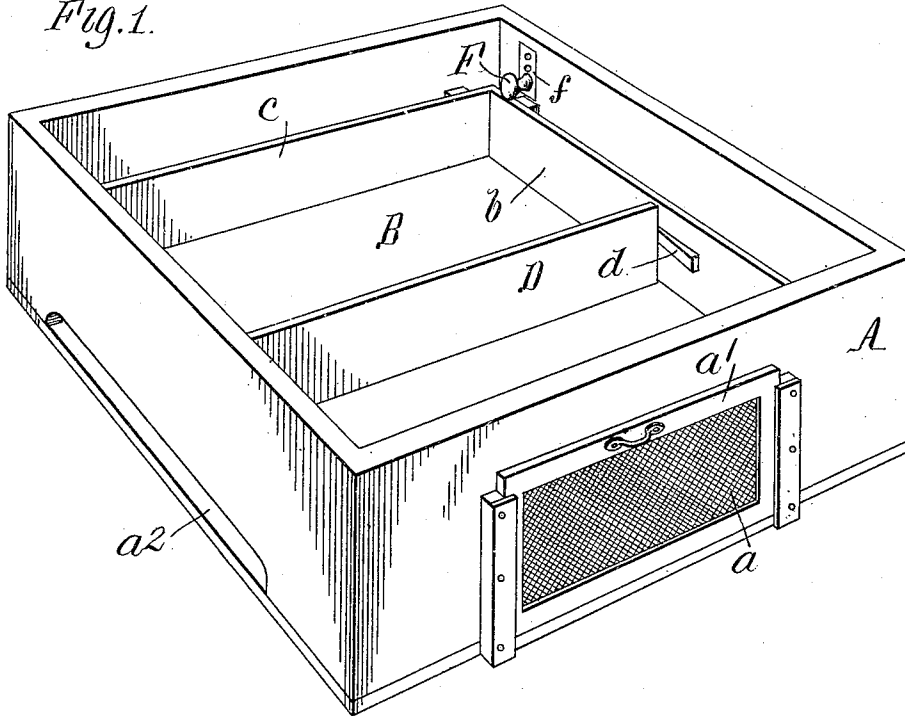
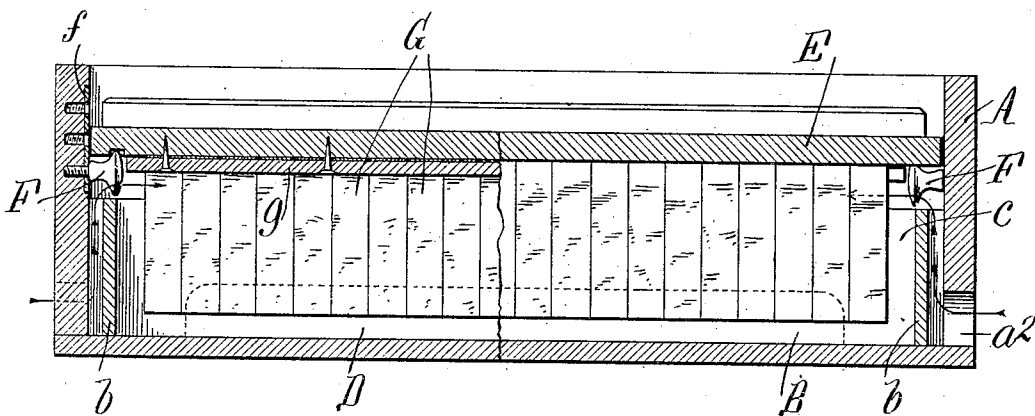


Fig. 2.



Witnesses:

A. G. Dimond.

A. L. McGee.

Inventor.

Albert P. Ward,
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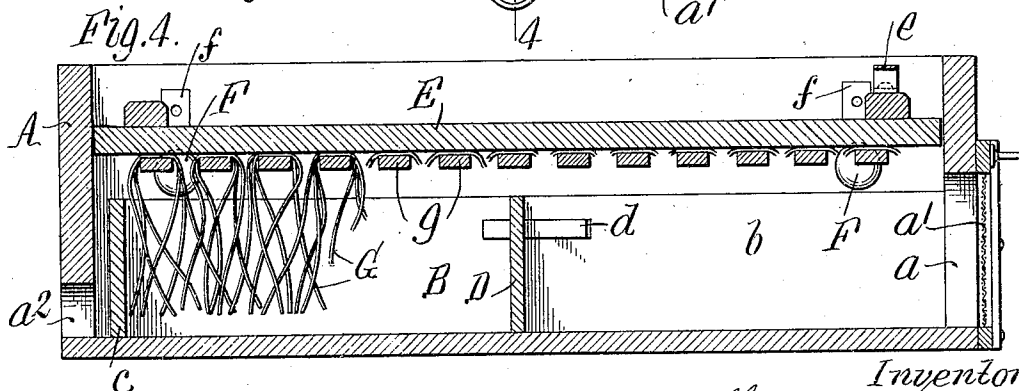
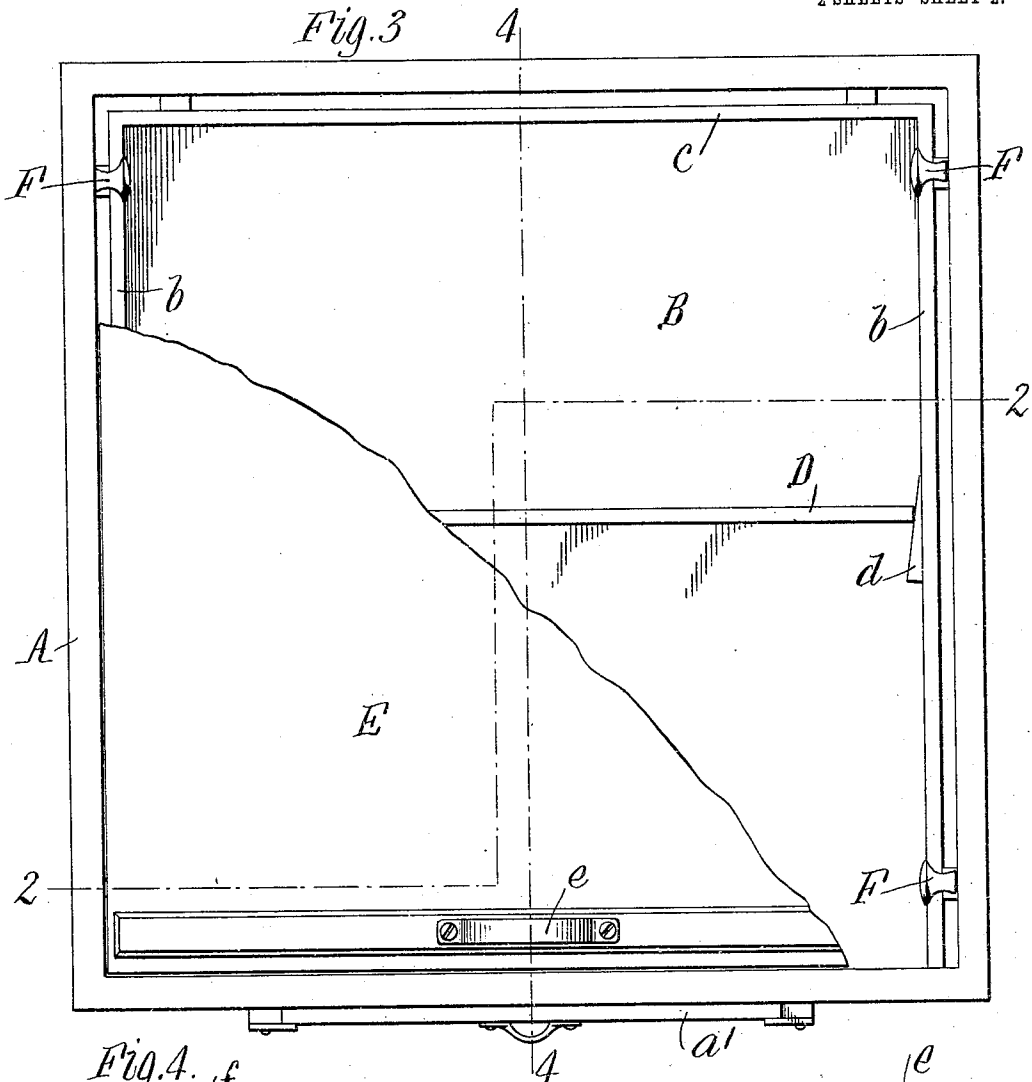
BROODER.

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2 SHEETS—SHEET 2.



Witnesses:

A. G. Diamond.

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UNITED STATES PATENT OFFICE.

ALBERT P. WARD, OF CALISTOGA, CALIFORNIA.

BROODER.

945,483.

Specification of Letters Patent.

Patented Jan. 4, 1910.

Application filed August 20, 1908. Serial No. 449,468.

To all whom it may concern:

Be it known that I, ALBERT P. WARD, a citizen of the United States, residing at Calistoga, in the county of Napa and State of California, have invented a new and useful Improvement in Brooders, of which the following is a specification.

This invention relates more particularly to improvements in brooders of that type in which no artificial heat is employed for maintaining the temperature of the brooder.

One object of this invention is to provide a brooder of this character for chickens and the like in which the natural bodily heat of the chickens is utilized to maintain a constant temperature within the brooder sufficiently high for brooding purposes, and to so construct the brooder that a suitable amount of fresh air is supplied to the chickens within the brooder without materially affecting the temperature of the brooder or exposing the chickens to drafts of any kind.

Further objects of the invention are to provide a brooder which will be simple and economical in construction and operation, requiring only a small amount of attention when in use, and in which the brooding space occupied by the chickens can be gradually increased in area and depth in accordance with their growth and ready access can be had at all times to the interior of the brooder for cleaning and other purposes.

In the accompanying drawings: Figure 1 is a perspective view of a brooder embodying the invention, showing the same with its cover removed. Fig. 2 is a sectional elevation of the brooder taken on line 2—2, Fig. 3. Fig. 3 is a top plan view of the brooder with the cover partially broken away. Fig. 4 is a sectional elevation taken on line 4—4, Fig. 3.

Like reference characters refer to like parts in the several figures.

The brooder is preferably constructed of wood and consists of a rectangular outer frame or casing A, closed at its bottom and provided in its front end with an opening *a* which is normally closed by a sliding screen door *a'*, and in its sides and rear end with longitudinally extending slots or openings *a''* formed therein adjacent to the bottom of the frame.

B represents a container for the chickens, formed by side partitions *b b* and an end partition *c* which are arranged within the

frame A adjacent to the sides and rear end thereof respectively, from which they are separated by a narrow intervening space. A confining board or front partition D connects the side partitions *b b*, thus closing the front end of the container. The confining board D fits snugly between the side partitions and is adjustably secured in place between the same by means of a wedge *d* which is inserted between the end of the confining board and one of the sides and serves to thus wedge the confining board firmly in position between the sides. Any other suitable means, however, may be employed for adjustably securing the confining board in position between the side partitions. The location of the confining board is determined by the number and size of the chickens in the brooder. The chickens are first placed in the rear portion of the brooder and the confining board is located as near the rear end thereof as possible without unduly crowding the chickens together. As the chickens grow, the confining board is gradually moved forward to increase the floor space which they occupy, and may finally be removed altogether when the chickens are of such size as to require the entire area of the brooder. The confining board may be readily removed, when desired, for feeding and other purposes, and when the confining board is removed the sliding door *a'* in the front of the brooder may also be opened at suitable times to allow the chickens to come out of the brooder for air and exercise.

The side partitions *b b*, end partitions *c* and confining board D extend only part way to the top of the frame A and in the space above these partitions is located a removable cover or lid E which fits snugly within the frame A and rests upon supports F which are secured in the side of the frame adjacent to its ends and above the sides of the container B, so that the cover is separated from the container by a narrow space which serves to admit air to the interior of the container. These supports are preferably adjustable vertically so that the height of the cover above the floor of the brooder may be increased as the chickens grow in size. They may be of any suitable construction. In the construction shown, the supports consist of screws having enlarged heads on which the cover rests, and the sides of the frame near their ends are provided with

wear plates *f*, each having a series of holes arranged vertically therein through which the screw of the support is adapted to pass into engagement with the side of the frame.

5 The supports can thus be raised and lowered, as desired.

The cover E has a suitable handle *e* for lifting and removing the same and is provided on its under side with a plurality of
10 narrow strips G of felt, flannel or some suitable heat-retaining material which depend downwardly therefrom to within a short distance of the floor of the brooder. These strips are preferably secured to the cover by
15 means of cleats or slats *g* arranged on the under side thereof over which the strips pass, but any other suitable means for securing them to the cover may be employed. The strips extend downwardly in various
20 directions and serve to cover and protect the sides and backs of the chickens and to retain the heat of their bodies and keep them warm and comfortable. The spaces between the different strips allow the air to circulate slowly throughout the brooder and thus
25 furnish the chickens with the necessary amount of air and prevent all danger of their being smothered. As shown by the arrows in Fig. 2, the outside air enters the
30 brooder through the opening *a* and slots *a*² in the sides and ends of the frame A and passes upwardly over the upper edges of the partitions and confining board into the chicken container where it comes into contact with the upper ends of the strips G.
35 It then moves slowly through the spaces between these strips and gradually becomes distributed throughout the brooder, the strips serving to break up the air currents so that no draft reaches the chickens.
40 The air also becomes warmed in its slow passage between the strips and thus all danger of lowering the temperature of the brooder and chilling the chickens is prevented. As no artificial heat is used, the
45 temperature of the brooder remains substantially uniform and there is no overheating of the chickens. The use of fuel and the

constant attention necessary in brooders where artificial heat is used are thus eliminated and the expense of maintaining and operating the brooder is accordingly greatly reduced. 50

The brooder as shown is designed for use under cover, in brooder houses and the like, 55 and if used out of doors it must be provided with a roof or protection of some kind against rain and severe winds.

I claim as my invention:

1. In a brooder, the combination with a 60 frame, of a container located therein and comprising fixed side and rear partitions secured in said frame and separated therefrom by an intervening space, a movable front partition which connects said side partitions 65 and is adjustable toward and from said rear partition to regulate the area of said container, and a cover for said container, said frame having openings therein for admitting outside air to said intervening space 70 and said container communicating with said intervening space adjacent to said cover for admitting air into the interior of said container, substantially as set forth.

2. In a brooder, the combination with a 75 frame, of a container located therein and having its sides and ends separated from said frame by an intervening space, said frame having openings therein for admitting outside air to said intervening space, 80 and a cover for said container having a plurality of strips of heat-retaining material depending therefrom, said cover being separated from said container by a narrow space through which air is admitted to the upper 85 ends of said strips adjacent to said cover and being adjustable toward and from said container to regulate the width of said space, substantially as set forth.

Witness my hand in the presence of two 90 subscribing witnesses.

ALBERT P. WARD.

Witnesses:

FRANK H. CONNER,
J. W. SIEMSERT.