

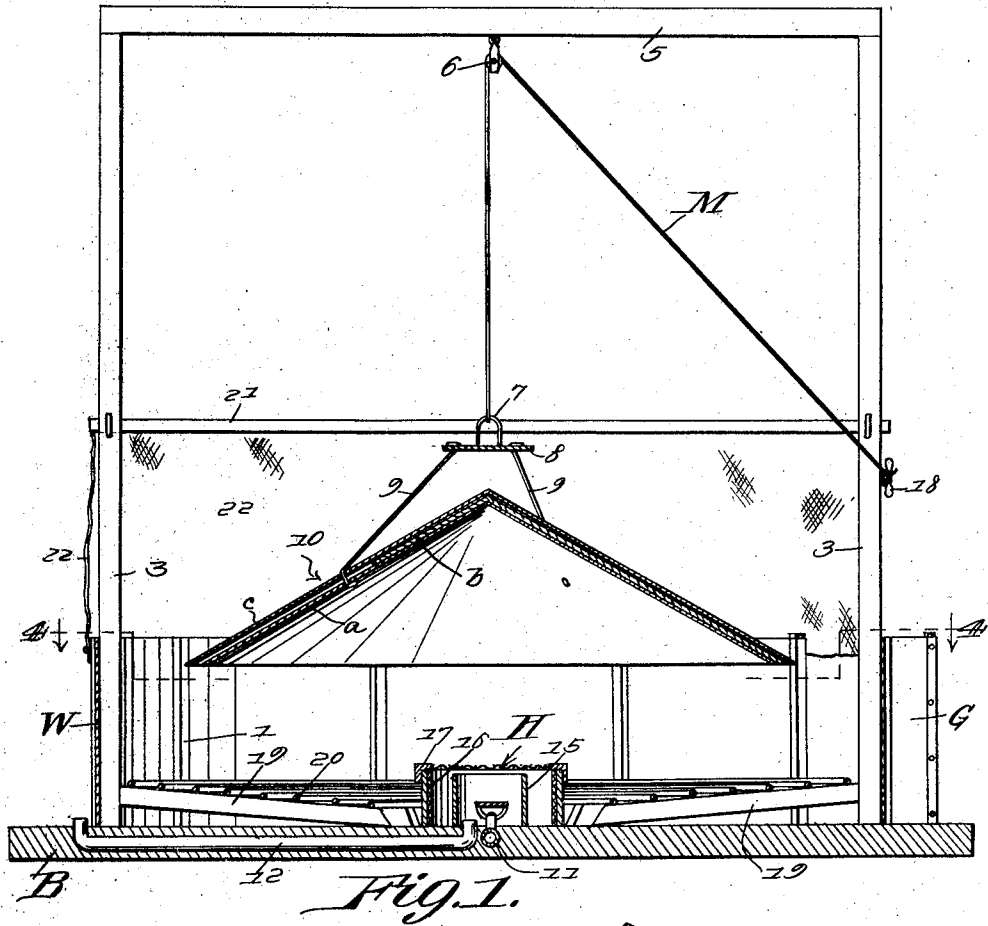
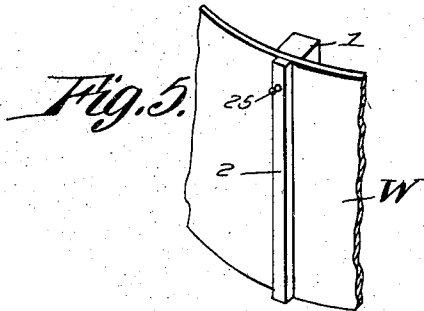
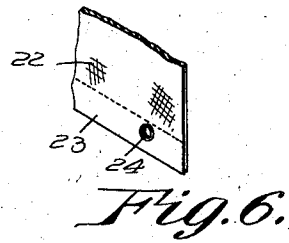
C. D. BOWKER.
BROODER.

APPLICATION FILED FEB. 23, 1922.

1,438,693.

Patented Dec. 12, 1922.

3 SHEETS—SHEET 1.



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BROODER.

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3 SHEETS—SHEET 2.

B Fig. 2.

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3 SHEETS—SHEET 3.

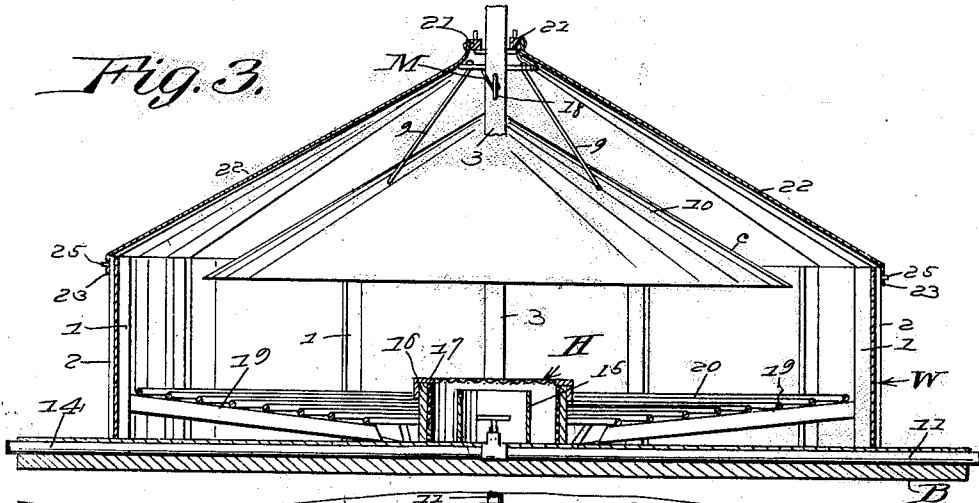
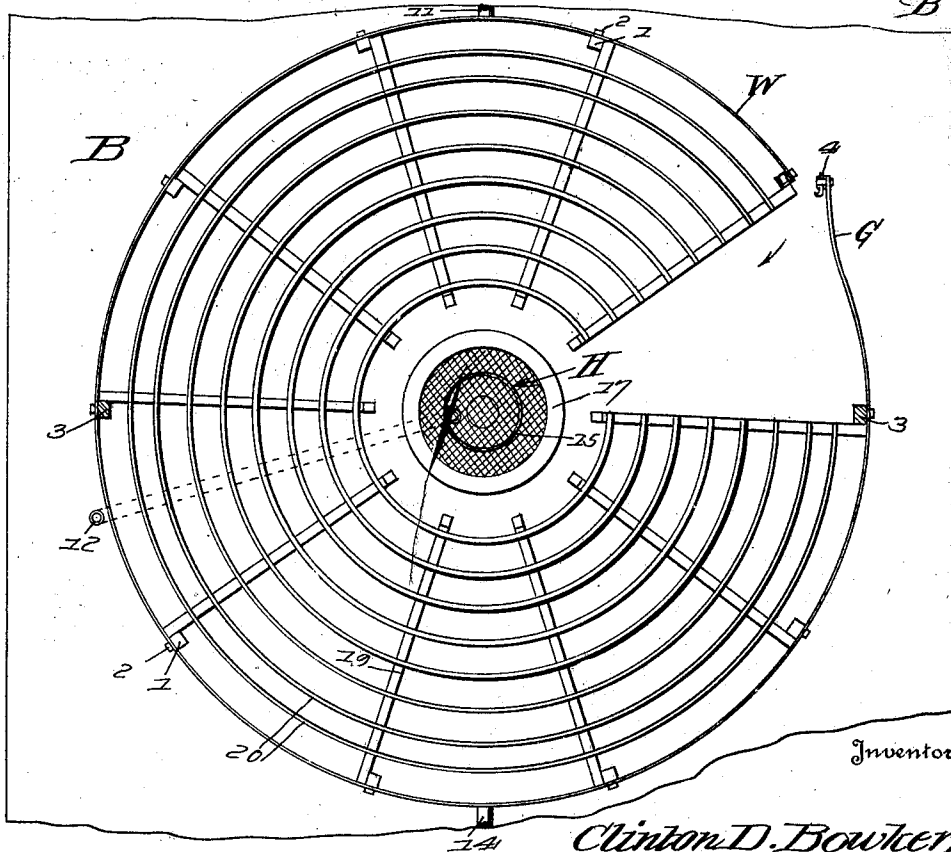


Fig. 4.

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UNITED STATES PATENT OFFICE.

CLINTON D. BOWKER, OF PHOENIX, ARIZONA.

BROODER.

Application filed February 23, 1922. Serial No. 538,695.

To all whom it may concern:

Be it known that I, CLINTON D. BOWKER, a citizen of the United States, residing at Phoenix, in the county of Maricopa and State of Arizona, have invented certain new and useful Improvements in Brooders, of which the following is a specification, reference being had to the accompanying drawings.

10 This invention relates to certain improvements in brooders and has relation more particularly to a device of this general character of a colony type and wherein a central heating unit is employed, and it is an object
15 of the invention to provide a device of this general character embodying novel and improved means whereby a hover may be supported to the best advantage to assure the heat being effectively thrown or deflected
20 upon the chicks.

Another object of the invention is to provide a novel and improved device of this general character wherein means are provided to effectively protect the chicks within
25 the brooder from the wind.

An additional object of the invention is to provide a device of this general character with a novel and improved means to protect the chicks within the brooder against rain
30 and which means may be readily and conveniently applied in working position or rendered inoperative as may be desired.

The invention consists in the details of construction and in the combination and arrangement of the several parts of my improved brooder whereby certain important advantages are attained and the device rendered simpler, less expensive and otherwise
40 more convenient and advantageous for use, as will be hereinafter more fully set forth.

The novel features of my invention will hereinafter be definitely claimed.

In order that my invention may be the better understood, I will now proceed to describe the same with reference to the accompanying drawings, wherein:
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Figure 1 is a view partly in elevation and partly in section illustrating a brooder constructed in accordance with an embodiment
50 of my invention;

Figure 2 is a view in top plan of the device as herein disclosed with the curtains or flaps omitted;

Figure 3 is a view partly in section and partly in elevation of the device as herein disclosed, the line of section being substan-
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tially at right angles to the line of section in Figure 1;

Figure 4 is a sectional view taken substantially on the line 4—4 of Figure 1; 60

Figure 5 is a fragmentary view in perspective illustrating in detail the mounting for the windshield; and

Figure 6 is a fragmentary view in perspective of a marginal portion of one of the
65 curtains or flaps.

As disclosed in the accompanying drawings, B denotes a base of requisite dimensions and of any preferred material but preferably wood. Extending upwardly from the
70 base B is a substantially circular series of upstanding posts of members 1.

W denotes a windshield which, when applied, is circular in form and is disposed upwardly of the posts or members 1 and substantially in contact therewith. Overlying
75 the outer surface of the windshield W and also each of the posts or members 1 is a retaining cleat 2, said cleat being secured to the post or member 1 by nails or the like
80 which extend through the cleat and windshield W and penetrate the post or member. The windshield W is of a height to best comply with the requirements of practice
85 and may be formed of any suitable material such as sanded roofing material.

Extending upwardly from the base B are the standards 3, the windshield W being also secured to the outer faces thereof as hereinbefore set forth with respect to the connection of the windshield W and the post or
90 member 1.

The windshield W is slit so that an extremity thereof will provide a flexible gate G, said gate being adapted to be located in
95 close proximity to the gate post or member 1 adjacent said standards 3 and held in closed position through suitable fastening elements 4. With the gate G suitably open, the chicks may have ready entrance within or exit from
100 the brooder.

The standards 3 extend a desired distance above the windshield W and have their upper extremities connected by a beam 5 or the like and suspended from the central portion of the beam 5 is a pulley block 6. Operatively engaged with the pulley block 6 is a flexible member M which is also suitably attached to a bail 7. The bail 7 extends upwardly from a disc or crown piece 8 and the
105 peripheral portions of this disc or crown piece 8 have engaged therewith the rods 9,
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said rods 9 being also secured to the upper or central portion of the hover 10. The rods 9 are equidistantly spaced from the circumference of the disc or crown piece 8 so that the hover 10 will be suspended from the disc or crown piece 8 in proper balance.

The hover 10 is concavo-convex with its apex upwardly directed. This hover is formed from a metallic sheet *a*, preferably iron, and covered from the top to a point substantially half way downwardly thereof with a lamination *b* of heavy sheet asbestos. Disposed entirely over the upper surface of the hover 10 and also over the lamination *b* is a second lamination *c* of asbestos roofing, the asbestos side of said lamination *c* being downwardly disposed. The laminations *b* and *c* superimposed upon the lamination *a* of the hover 10 serve to retain the heat generated by the heating unit H and to deflect such heat downwardly so that the same will be imposed upon the backs of the chicks.

As herein disclosed, the heating unit H comprises a gasoline burner of a conventional type and leading from such unit H is a feed pipe 11 adapted for communication with a suitable source of fuel. Discharging at a point adjacent the heating unit H is an air pipe 12, said pipe being in communication with the atmosphere at a point exteriorly of the brooder and more especially the windshield W. This air pipe provides a delivery of cool fresh air to the heating unit H to be suitably warmed and thrown down by the hover 10 upon the backs of the chicks.

Also in communication within the hover 10 at a point in close proximity to the heating unit H is a pipe 14 which is adapted to convey fuel to a second brooder in the event it is desired to employ a series or battery of units.

Surrounding the heating unit H is a concentric pair of cylindrical members or partitions 15 and 16 suitably spaced one from the other to protect the chicks against burning by contact with the heating unit H or coming into close proximity thereto. The inner partition 15 is preferably of sheet iron while the outer partition 16 is preferably produced from asbestos roofing with the asbestos side inwardly disposed.

Disposed over the upper ends of the partitions 15 and 16 and supported thereby is a cap 17 having its body portion of foraminated or reticulated material. This cap, when applied, serves to prevent the chicks from entering within the chambers defined by the partitions 15 and 16 and yet at the same time forms no hindrance or obstruction to the desired upward flow of air heated by the unit H.

The hover 10 may be raised or lowered to best comply with the requirements of practice upon proper manipulation of the flex-

ible member M and said hover is held at desired elevation by attaching said member M to a cleat 18 or other holding means.

Secured to the inner face of each of the posts or members 1 and each of the standards 3 is the upper end portion of a sill 19, such connection being at a desired point above the base B. The sill 19 extends inwardly and downwardly on a predetermined incline and is secured to the base B at a point closely adjacent the outer partition 16.

The sills 19 have secured to the upper faces thereof the substantially circularly arranged roosts 20 arranged in concentric relation and upon which the chicks are adapted to perch.

Arranged at opposite sides of the standards 3 and supported thereby are the strips or beams 21, to each of which is secured a curtain 22 preferably of canvas. The outer marginal portions of each of the curtains or flaps 22 are provided with the eyelets 24 adapted for coaction with the retaining or holding members 25 extending outwardly from the windshield W and also preferably from the posts or members 1. With the curtains or flaps 22 in engagement with the holding members 25, the curtains or flaps are disposed over the brooder as defined by the windshield W in a manner to afford an effective protection against the rain.

While I have hereinbefore described and the drawings illustrate the posts or members 1 and the standards 3 as supported upon a base B, it is to be understood that these elements may be readily supported by being driven into or otherwise engaged with the ground. It is also to be noted that the roosts 20 are not continuous but are cut away or spaced adjacent the gate G in order that the chicks may have free and unobstructed entrance and exit.

From the foregoing description it is thought to be obvious that a brooder constructed in accordance with my invention is particularly well adapted for use by reason of the convenience and facility with which it may be assembled and operated, and it will also be obvious that my invention is susceptible of some change and modification without departing from the principles and spirit thereof and for this reason I do not wish to be understood as limiting myself to the precise arrangement and formation of the several parts herein shown in carrying out my invention in practice except as hereinafter claimed.

I claim:

1. In a brooder, the combination with a windshield constituting the side wall of the brooder, upstanding members for maintaining the windshield in position, upstanding standards positioned adjacent the windshield and substantially diametrically opposed, a heating unit within the brooder, a

hover overlying the heating unit, curtains secured to the standards above the hover, and means for securing said curtains to the windshield.

- 5 2. In a brooder, the combination with a windshield constituting the side wall of the brooder, upstanding standards positioned adjacent the windshield and substantially diametrically opposed, a heating unit with-

in the brooder, a hover overlying the heating unit, beams positioned above the hover and supported by the standards at opposite sides thereof, curtains secured to the beams, and means for securing said curtains to the windshield. 10

In testimony whereof I hereunto affix my signature. 15

CLINTON D. BOWKER.