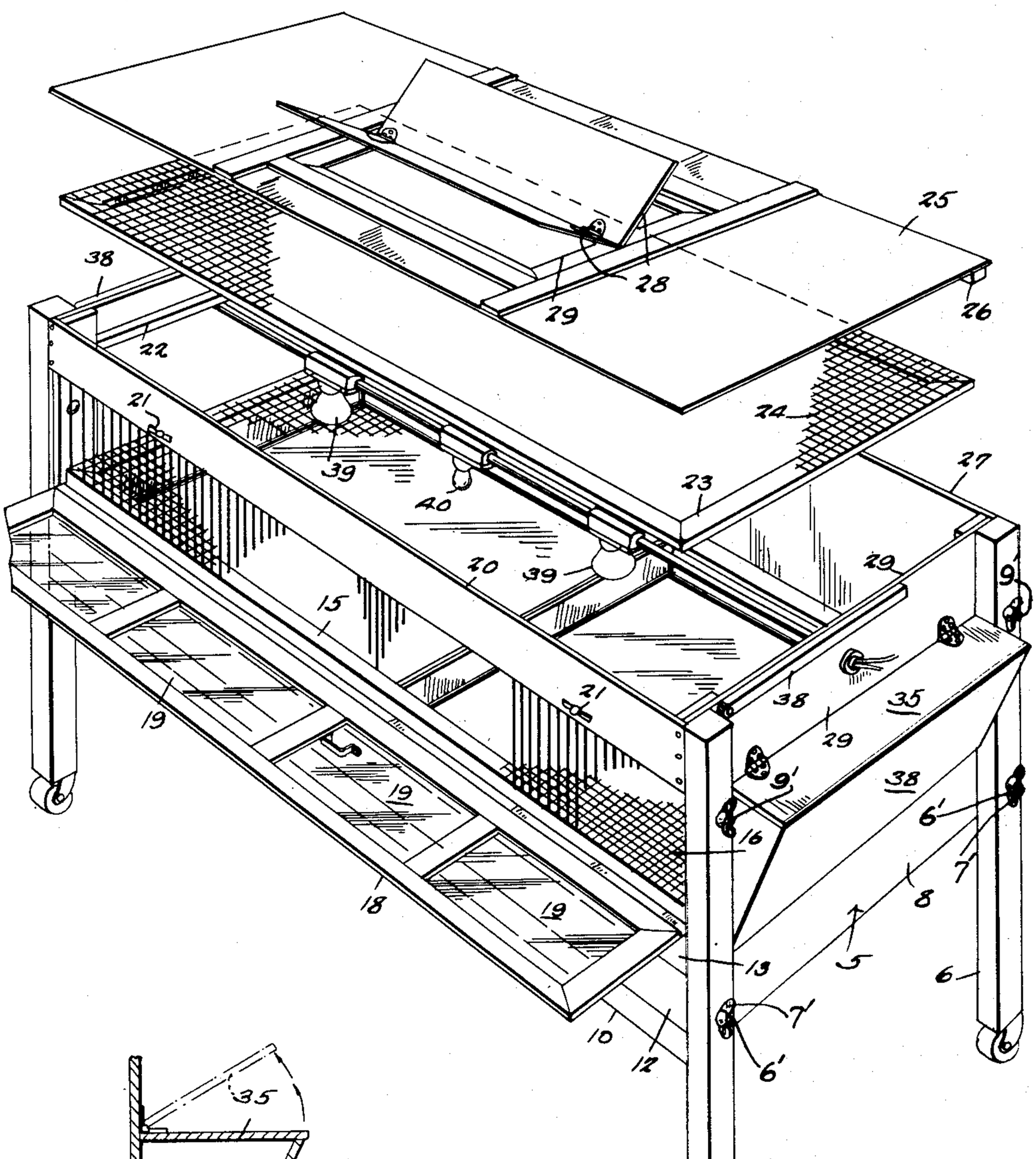
Feb. 17, 1953 A. E. WOOD 2,628,590

BROODER STRUCTURE

Filed Sept. 20, 1949 2 SHEETS—SHEET 1

Fig. 1.



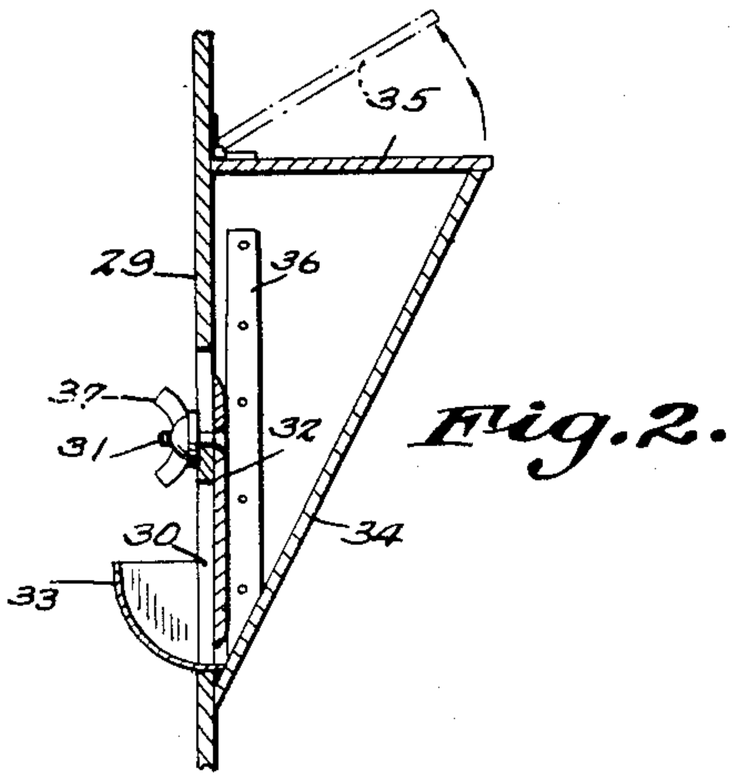


Fig. 2.

A. E. Wood

INVENTOR

BY C. A. Snow & Co.

ATTORNEYS.

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Fig. 3.

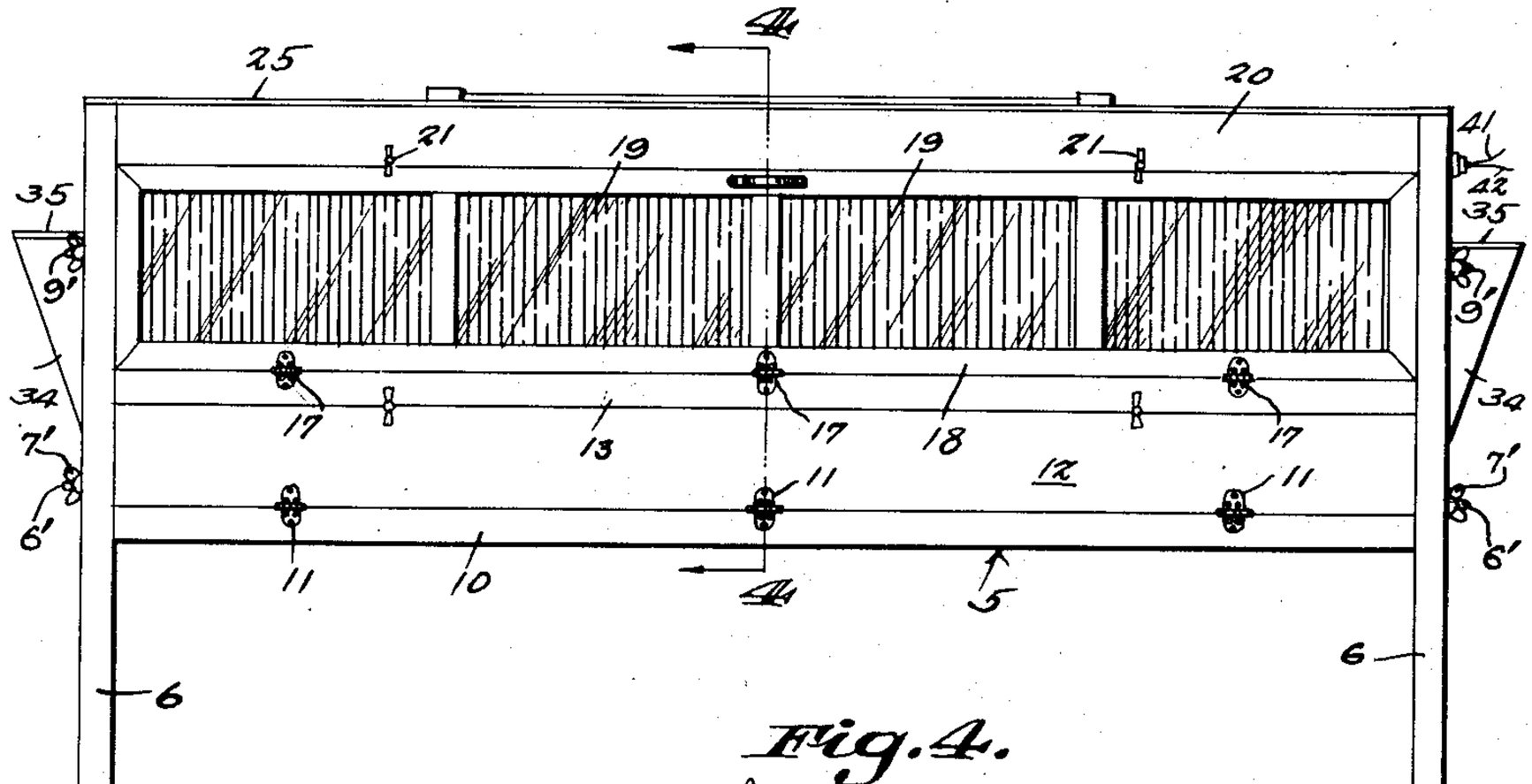


Fig. 4.

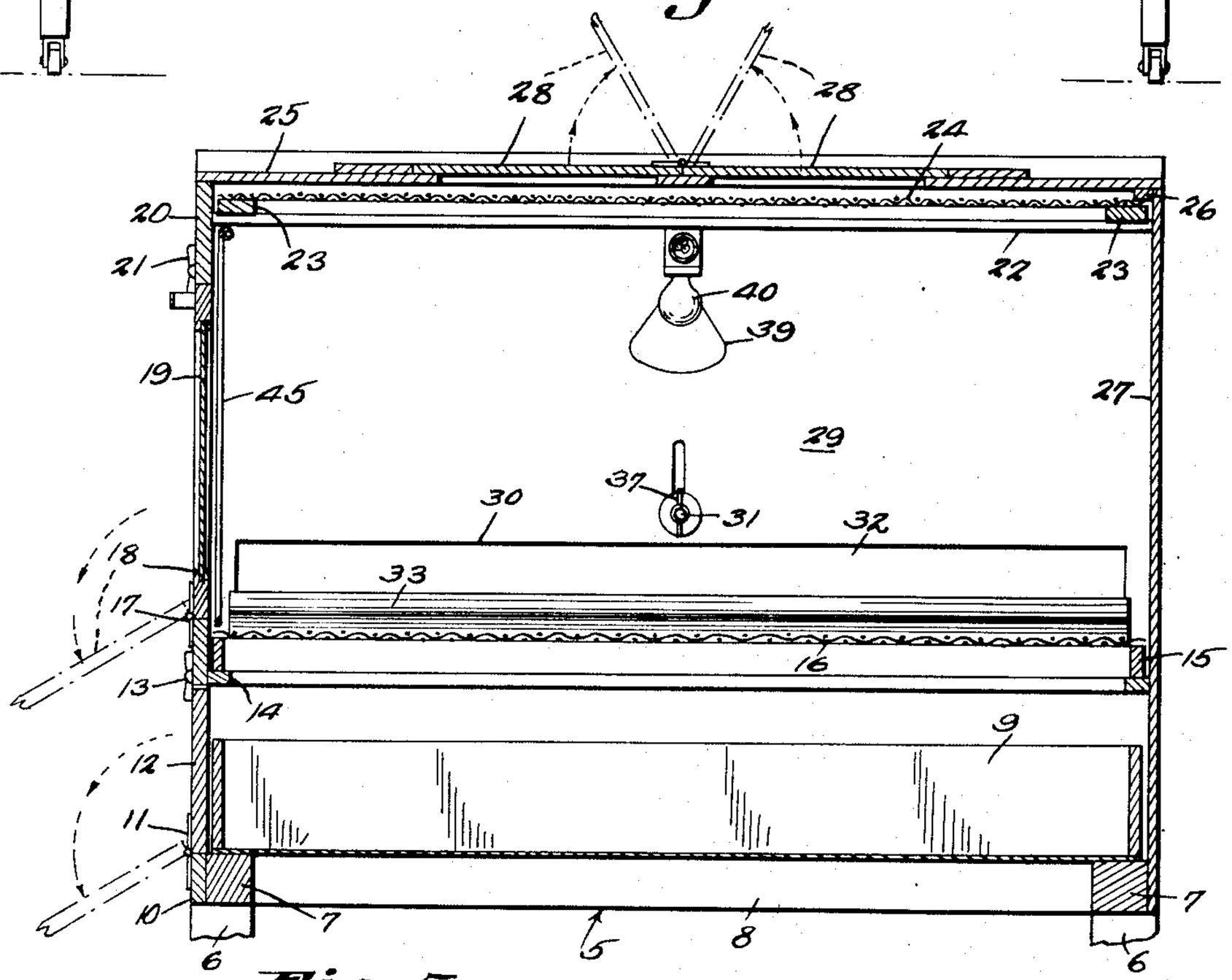
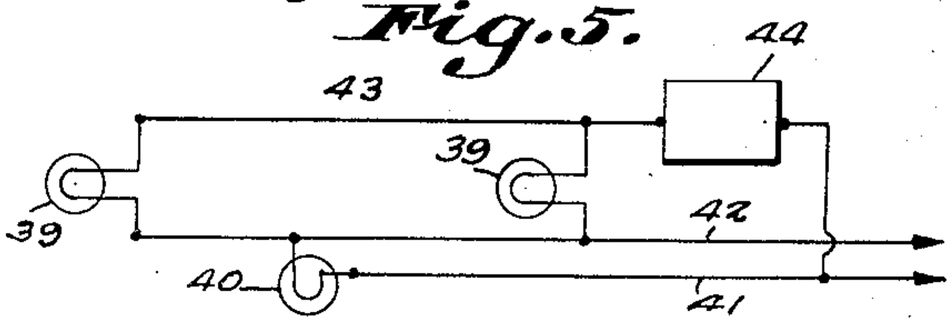


Fig. 5.



A. E. Wood

INVENTOR

BY C. A. Snow & Co.

ATTORNEYS.

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UNITED STATES PATENT OFFICE

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BROODER STRUCTURE

Allen E. Wood, Otis, Colo.

Application September 20, 1949, Serial No. 116,799

1 Claim. (Cl. 119—32)

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This invention relates to brooder construction, an important object of the invention being to provide a brooder structure wherein sufficient heat for the health of the chicks placed therein, will be supplied by lamps instead of the usual heating coils or the like, which have a tendency to destroy the oxygen in the air within the brooder.

An important object of the invention is to provide a brooder of this character including a floor which may be of a permanent or removable character constructed of wire mesh material and a removable clean out tray or bottom supported directly thereunder to catch droppings, the tray or bottom permitting of the cleaning and reconditioning of the brooder, with facility.

Still another object of the invention is to provide a brooder of this character having feed troughs at its ends, which troughs may be filled from the exterior of the brooder, means being provided for regulating the passage of feed through the feed troughs.

Still another object of the invention is to provide a brooder having its top closed by means of a wire screen member, and a closure above the wire screen member of solid formation, the closure of solid formation being removable to ventilate the interior of the brooder, as desired.

With the foregoing and other objects in view which will appear as the description proceeds, the invention consists of certain novel details of construction and combinations of parts hereinafter more fully described and pointed out in the claim, it being understood that changes may be made in the construction and arrangement of parts without departing from the spirit of the invention as claimed.

Referring to the drawings:

Figure 1 is a perspective view of a brooder constructed in accordance with the invention, the closures for the top of the brooder, as well as the hinged closure of the front of the brooder, being shown in their open positions.

Fig. 2 is an enlarged vertical sectional view through a feeder and trough at one end of the brooder.

Fig. 3 is a front elevational view of the brooder.

Fig. 4 is an enlarged vertical sectional view taken on line 4—4 of Fig. 3.

Fig. 5 is a diagram illustrating the wiring circuit.

Referring to the drawings in detail, the brooder comprises a body portion indicated generally by the reference character 5, the body portion being supported by means of the legs 6

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arranged at the corners thereof. The legs 6 are removably connected to the front and rear bars 7 and end bars 8, constituting a rectangular frame for the body portion, the bars 7 and 8 providing supports for the bottom thereof, which is in the form of a tray. Bolts 6' are disposed in openings of the legs 6 and end bars 8, while bolts 9' extend through the legs 6 and members 29 above the bars 8 removably securing the legs 6 to the body portion in such a way that the legs may be detached allowing the body portion to rest on the floor of a building, allowing the chicks to pass into and out of the device. Wing nuts 7' are positioned on the bolts 6' securing the legs to the body portion.

Secured along the front surface of the front bar 7, is the bar 10 to which the hinges 11 are connected, the hinges 11 being also connected with the closure 12, which normally closes the space in which the tray or member 9 is held, the tray or member 9 resting directly on the bars 7 and 8, as clearly shown by Fig. 4 of the drawings.

Also connected with the legs 6, is a front bar 13 that extends transversely across the front of the brooder, to which bar 13 is secured the rectangular frame 14, that in turn supports the rectangular frame 15, to which the wire screen 16 is connected. This wire screen and its frame provide the removable bottom or floor for the brooder, the mesh of the wire screen being such as to permit droppings to pass therethrough.

The front bar 13 provides a support for the hinges 17 that connect the closure 18 to the brooder, the closure 18 being provided with windows 19 which exclude cold and at the same time permit the chicks within the brooder to be viewed.

A wide bar 20 extends along the upper edge of the brooder and provides the frame in which the closure 18 moves. Pivoted securing members 21 are provided on the bar 20 and are moved into engagement with the frame 18 when closed, holding the frame 18 closed. Supporting bars 22 are secured adjacent to the top of the brooder and support the frame 23 to which the wire mesh material 24 is secured, the wire mesh material 24 with its frame, constituting a ventilating top for the brooder, when the permanent top 25 has been removed.

This permanent top 25 is formed with a cleat 26 formed along its rear edge, which cleat 26 is adapted to rest against the inner upper edge of the back wall 27 of the brooder.

Hinged closures 28 normally close the openings

29 formed in the top 25, and can be moved to full open positions for ventilating purposes. To increase ventilation, it is only necessary to remove the top 25, the member 24 acting as a guard to prevent the chicks from escaping.

End members 29 form a part of the brooder and these end members have their lower edges spaced from the upper edges of the end bars 8, providing the space 30. The end members 29 are also formed with elongated openings through which the bolts 31 extend, the bolts 31 being connected with the valve 32 which are in the form of slides movable vertically, the lower edges of the slides or valves 32 being spaced from the lower edges of the space 30, permitting grain to pass thereunder.

A feed trough indicated at 33, Fig. 2, is secured to each end bar 8 and these troughs are disposed within the brooder, while the hoppers 34 which supply feed to the troughs 33 through the spaces under the valves 32, are disposed centrally of the brooder, the hoppers 24 being provided with hinged closures 35, which may be opened to fill the hoppers with feed.

The reference character 45 indicates a pivoted grill that closes the front of the brooder to confine the birds within the brooder when the closure 18 is opened for ventilating purposes.

The valves 32 slide between the edges of the end members 29 and the vertical guide bars 36 that are secured to the ends of the hoppers 34 in spaced relation with the end members 29.

Winged nuts 37 are provided on the bolts 31 for tightening the valves 32 in their positions of adjustment, thereby adapting the feed hoppers for delivering grain of various sizes, to the troughs 33.

Pivotally mounted at the ends of the brooder, are props 38 which may be swung to upright positions for engagement with the top 25, when the top 25 is swung upwardly to open the top of the brooder.

Mounted within the brooder are heating lamps 39, preferably of the infra ray type, while the lamp 40 constitutes the illuminating lamp which remains lit at all times.

Electric current is supplied to the lamp 40 through the wires 41 and 42 that are in circuit with a suitable source of electricity supply, not shown. The wires 42 and 43 provide the circuit to the lamp 39, and the thermostat 44 which is also in circuit and controls the lamps 39, the thermostat acting to complete the circuit to the lamps 39 to cause a further heating of the

brooder, when the temperature in the brooder falls below a predetermined degree, the thermostat also acting to break the circuit to the lamps 39, when the temperature within the brooder has risen to the desired degree.

From the foregoing it will be seen that due to the construction shown and described, I have provided a brooder, which may be maintained clean and sanitary at all times, and one which will be supplied with sufficient heat to maintain the air within the brooder comfortable for the chicks housed therein, by the use of electric lamps, thereby eliminating the use of electric heating coils or the like, which tend to destroy the oxygen in the air.

Having thus described the invention, what is claimed is:

In a brooder, a box-like body including supporting legs, front and rear horizontal bars connected with the supporting legs and extending inwardly therefrom, a removable pan resting on said front and rear horizontal bars providing the bottom of the body, a stationary rectangular frame secured to the supporting legs above said pan, said stationary frame extending inwardly from the legs providing a support, a wire screen frame resting on the stationary rectangular frame providing a brooder compartment bottom, inwardly extended horizontal supporting bars secured at the upper ends of said legs, a wire mesh frame removably mounted on said horizontal supported bars, a removable top closing the top of the body, said top having ventilating openings formed therein, hinged closures connected to the removable top normally closing said ventilating openings, said body having openings in the front thereof, and hinged closures normally closing the openings in the front of the body.

ALLEN E. WOOD.

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