

No. 834,450.

PATENTED OCT. 30, 1906.

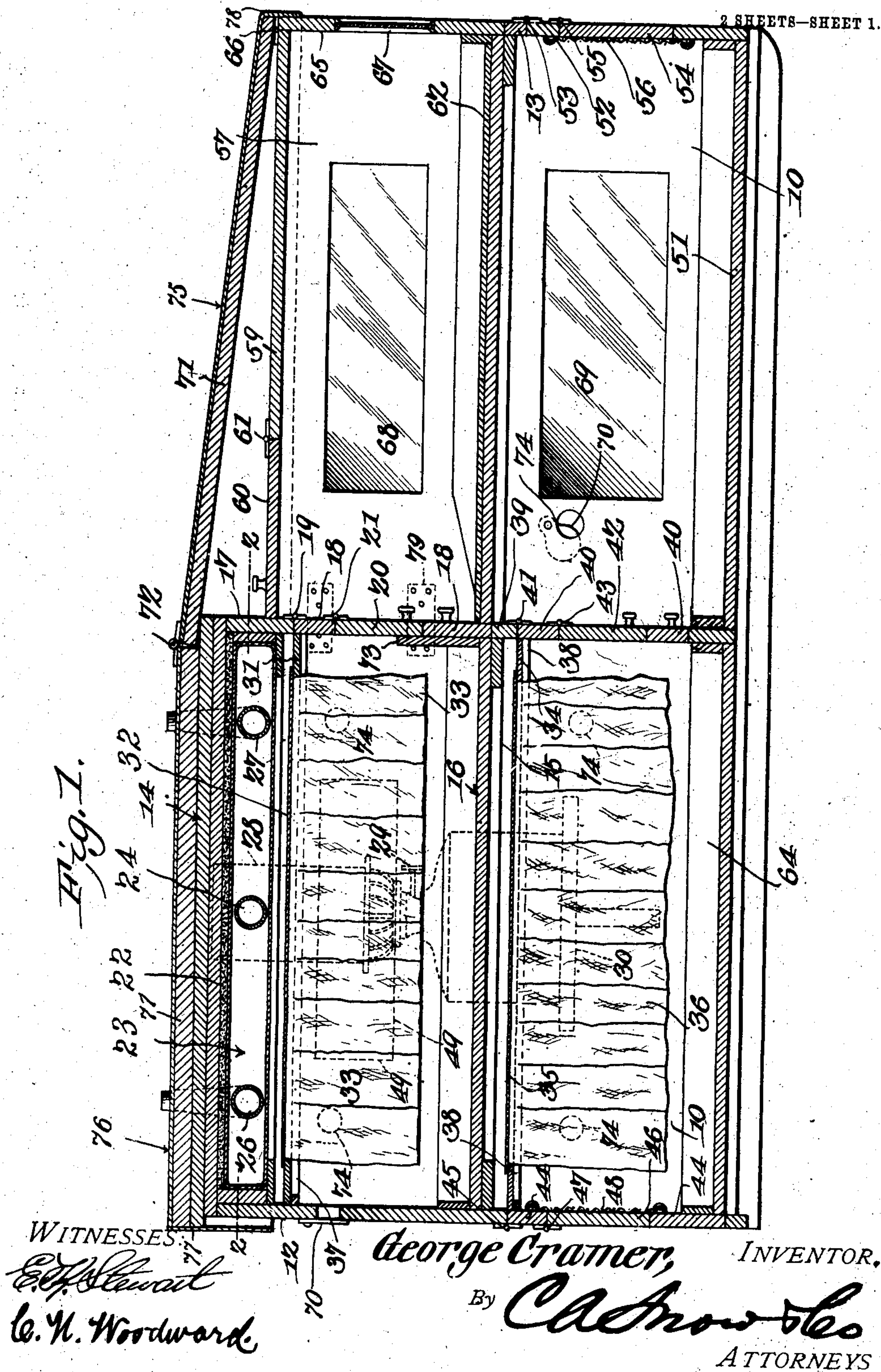
G. CRAMER.

BROODER:

APPLICATION FILED FEB. 13, 1906.

2 SHEETS—SHEET 1.

Fig. 1.



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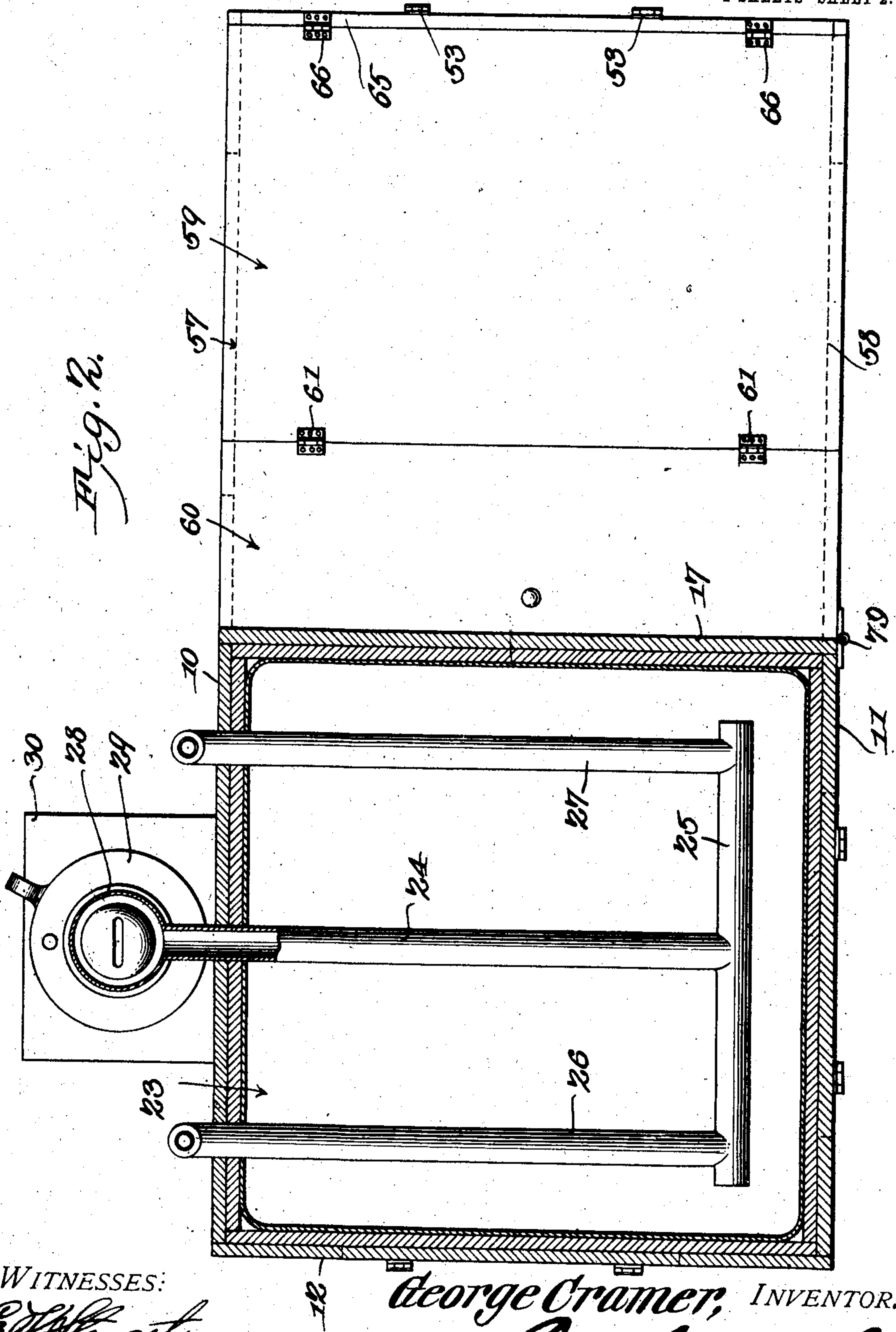
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# UNITED STATES PATENT OFFICE.

GEORGE CRAMER, OF BUTLER, OHIO.

## BROODER.

No. 834,450.

Specification of Letters Patent.

Patented Oct. 30, 1906.

Application filed February 13, 1906. Serial No. 300,886.

*To all whom it may concern:*

Be it known that I, GEORGE CRAMER, a citizen of the United States, residing at Butler, in the county of Richland and State of Ohio, have invented a new and useful Brooder, of which the following is a specification.

This invention relates to poultry-brooders, and has for its object to improve the construction and increase the efficiency and utility of devices of this character.

With these and other objects in view, which will appear as the nature of the invention is better understood, the invention consists in certain novel features of construction, as hereinafter fully described and claimed.

In the accompanying drawings, forming a part of this specification, and in which corresponding parts are denoted by like designating characters, is illustrated the preferred form of the embodiment of the invention capable of carrying the same into practical operation.

In the drawings, Figure 1 is a longitudinal sectional elevation. Fig. 2 is a plan view in section on the line 2-2 of Fig. 1 with the storm-shield removed.

In the improved apparatus is comprised in general a brooding-compartment having a heating element closely associated therewith and in which the very young chicks are first located, a runway or "yard" for the chicks connected with the heated brooding-compartment, a second brooding-compartment more distantly associated with the heating medium for the chicks when older, and a yard or runway connected with the second brooding-compartment, the two compartments and their yards being independently accessible, so that the chicks may be separately cared for in each.

The improved device is constructed of an oblong casing having sides 10 and 11 and ends 12 13, the sides being higher at one end, and with a closed top 14 over the higher portion.

Intermediate the higher portion of the casing is a horizontal frame 15, upon which a drawer or tray 16 rests, the tray thus dividing the higher portion of the casing into two compartments, as represented in Fig. 1.

The inner end of the upper compartment is provided with a closure 17, in which a door 18 is hinged at 19 to swing outwardly, and within this door 18 a smaller door 20 is hinged at 21, the larger door uncovering the whole

lower area of the compartment and permitting the removal of the drawer or tray 16, while the smaller interior door permits the inspection of the interior of the compartment without permitting the chicks to escape.

The inner end of the lower compartment is provided with a closure 39, in which a door 40 is hinged at 41, the larger door having a smaller door 42 hinged thereto at 43, whereby access may be had to the lower compartment at the inner end or the chicks inspected without permitting them to escape.

The end 12 of the casing is also provided with a door 44 opposite the lower compartment and hinged at 45 to the end member 12, the larger door having a smaller door 46 hinged at 47 therein and the aperture formed for the smaller door covered interiorly with wire-netting 48 to protect the compartment when the smaller door is open.

Glass-covered windows (indicated at 49) are located in the side walls of the upper brooding-compartment to provide light thereto as well as to provide means for observing the chicks without opening the doors, and a drawer or tray 64 is located in the lower brooding-compartment and removable through the door 44.

The cover portion 14 of the higher portion of the casing is double and lined with non-conducting material 22, such as paper or the like, and supported beneath the filling material is a hot-water tank 23.

Leading into the tank 23 through the side wall 10 of the casing is a conductor-pipe 24, which branches laterally at the inner end, as at 25, and thence extends by spaced conductor-pipes 26 27 to the external air again.

A shell 28 depends from the outer end of the tube 24, and beneath this shell a lamp 29 is located, the lamp supported upon a bracket 30 on the side wall 10 of the casing. By this means a constant current of hot air is maintained through the conductor-tubes and radiates from thence into the water in the tank and maintains the same at a uniform temperature, and thus imparts the requisite heat to the compartment beneath the tank, the tank being thus closely associated with the upper brooding-compartment and more distantly associated with the lower brooding-compartment.

Supported in the upper compartment near the tank 23 is a frame 31, forming a support for a fabric sheet 32, from which a plurality of hover-cloths 33 depend toward the tray 16,



and likewise supported in the lower compartment is a similar frame 34, fabric sheet 35, and hover-cloths 36 are located, as shown.

The frame 31 rests upon cleats 37, and the frame 34 rests upon cleats 38, so that each frame and its attachments may be removed when the doors 18 and 40 are opened.

The portion of the casing into which the inner end of the lower compartment opens forms a runway or yard, to which the chicks have access when the door 40 is opened.

A tray or drawer 51 is detachably located in the bottom of the lower runway, and the outer end of the casing opposite the runway is provided with a door 52, hinged at 53 to the casing and through which the tray 51 may be removed.

The door 52 is provided with a smaller door 54, hinged at 55 thereto, and with the opening of the smaller door covered interiorly with wire-netting 56 to protect the chicks in the runway when the smaller door is open.

Disposed above the portion of the casing forming the yard or runway of the lower brooding-compartment is a supplemental casing or frame forming the closure for the runway or yard of the upper brooding compartment, the casing having closed sides 57 58 and closed top 59, a portion 60 of the top being hinged at 61 to fold back to afford access to the upper yard.

The supplemental casing is hinged at 79 to the forward portion of the upper brooding-compartment casing, so as to swing laterally and uncover the yard of the lower brooding-compartment.

A tray or drawer 62 is disposed in the upper yard or runway, and the outer end of the supplemental casing is in the form of a door 65, hinged at 66 to the casing, through which the tray or drawer 62 can be removed.

The door 65 is provided with a glass-covered aperture 67, while the side walls of both the lower and upper yards are likewise provided with glass-covered apertures, as at 68 69.

Disposed transversely of the outer end of the tray 16 of the upper brooding-compartment is a shield-plate 73, adapted to be turned down over the joint between the trays 16 and 62 when the door 18 is open to provide a safe passage for the little chicks from the brooding-compartment to the yard or from the yard to the brooding-compartment.

Numerous ventilator-apertures 74 are formed at suitable intervals through the walls of the casing and provided with closures 70 to enable them to be closed or partly closed, as required.

The side walls 10 11 extend below the trays 64 and 51 to provide a ventilating-space below the whole apparatus.

A storm-shield 71 is removably disposed over the device and preferably in two parts

hinged at 72, so that either part of the device may be uncovered, as required.

The storm-shield members are preferably covered with sheet metal, as represented at 75 76, and with the sheet metal depending at the ends, as at 77 78, to form guard-rims to further protect the structure. By this arrangement the trays or drawers are all removable from the casings for cleansing, while the "hover" members are also easily removable for cleansing and disinfecting or renewal. The whole interior of the casing is thus easily accessible for thorough ventilation, fumigation, and the like.

The very young chicks are first placed in the upper brooding-chamber, which is closely associated with the heating medium, and when sufficiently grown may be released by opening the door 18 and disposing the guard member 73 in position over the joint between the trays 16 and 62 to permit access to the yard associated with the upper brooding-chamber, where they may be supplied with food through the door 60 in the cover 59.

When the chicks are sufficiently grown, they are transferred to the lower brooding-chamber, which is removed from the direct influence of the heating medium, and from thence permitted access to the lower yard or runway. In the meantime another lot of the younger chicks can be placed in the upper brooder and the operation of the device thus made continuous, if preferred.

Having thus described the invention, what is claimed is—

1. A brooder divided into separate compartments, a movable closure to each of said compartments, and a tray disposed in each of said compartments and removable through said closures, one of said trays forming the dividing means between said compartments.

2. A brooder divided into separate compartments, a removable hover member disposed in each of said compartments, and a removable tray disposed in each of said compartments, one of said trays forming the dividing means between said compartments.

3. A brooder divided into separate compartments, a movable closure to each of said compartments, a tray disposed in each of said compartments and removable through said closures, one of said trays forming the dividing means between said compartments, and a hover member in each of said compartments and removable therefrom through the closures.

4. A brooder divided into separate compartments, a movable closure to each of said compartments, a tray disposed in each of said compartments and removable through said closures, one of said trays forming the dividing means between said compartments, a supporting-frame removably disposed in each of said compartments, and hover members attached to each of said frames.



5. In a brooder, superimposed compartments, a removable tray forming the dividing means between the compartments, a movable closure to each of said compartments, and a heating medium in one of said compartments.

6. A brooder divided into separate compartments, a removable tray disposed in each of said compartments, one of said trays forming the dividing means between said compartments, a fabric sheet removably disposed in each of said compartments and provided with hover members depending therefrom.

7. A brooder divided into superimposed compartments, a yard connected to the lower of said compartments, and a yard connected to the upper of said compartments and detachably disposed relative to the lower of said yards and forming a closure to the same.

8. A brooder divided into superimposed compartments, a yard connected to the lower of said compartments, a yard connected to the upper of said compartments and detachably disposed relative to the lower of said yards and forming a closure to the same, and a movable closure to each of said compartments and controlling the access to said yards.

9. A brooder divided into superimposed

compartments, a yard connected to the lower of said compartments, a yard connected to the upper of said compartments and detachably disposed relative to the lower of said yards and forming a closure to the same, a movable closure to each of said compartments and controlling access to the yards, and movable closures to said yards.

10. A brooder divided into superimposed compartments a yard connected to the lower of said compartments, a yard connected to the upper of said compartments and detachably disposed relative to the lower of said yards and forming a closure to the same, a movable closure to each of said compartments and controlling access to the yards, movable closures to said yards, a shield having depending rims and bearing over said superimposed compartments, and a shield bearing over said movable yard portion and with depending rims, said shields being movably connected at their adjacent ends.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

GEORGE CRAMER.

Witnesses:

D. C. SCOTT,

B. E. FRASHER.