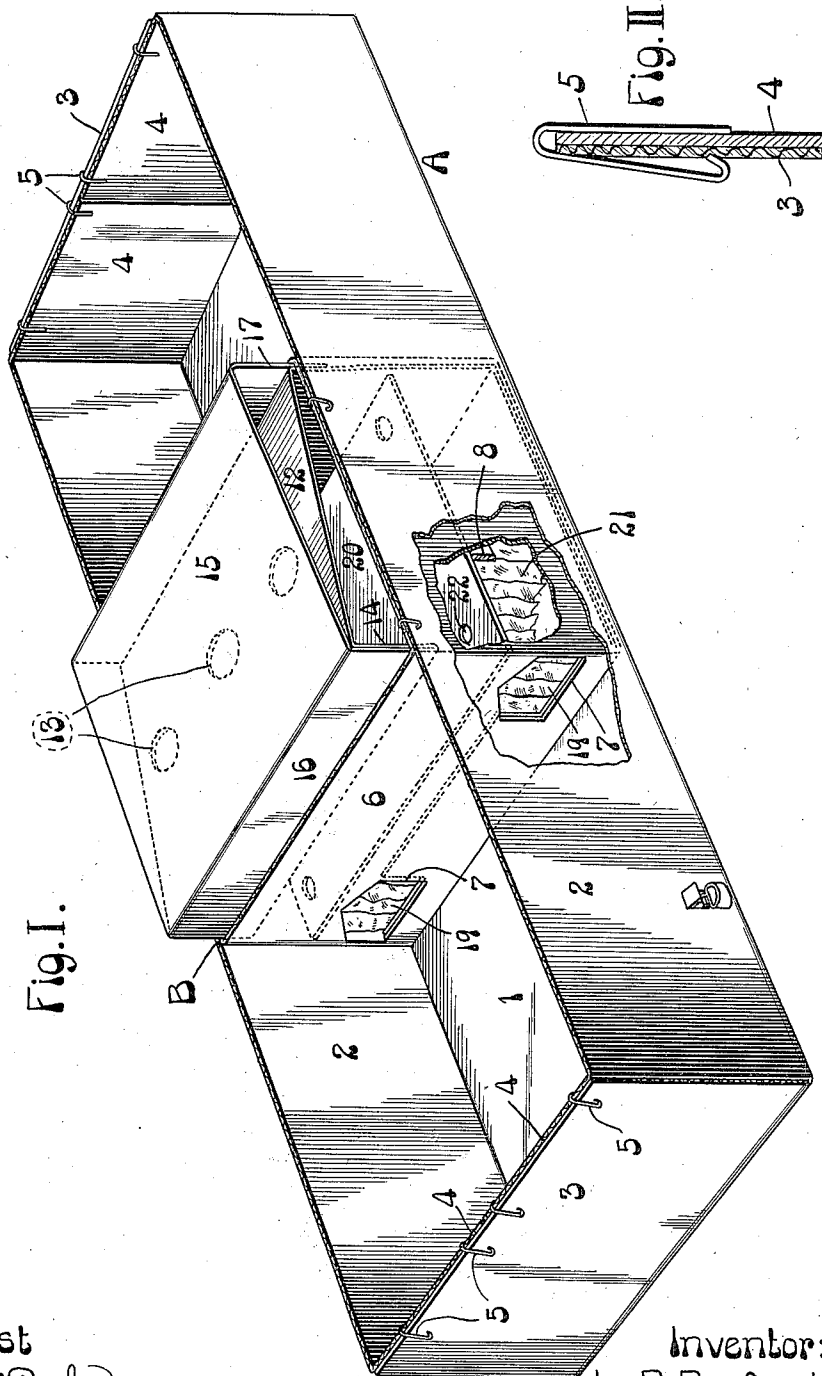


L. P. REXFORD.
KNOCKDOWN BROODER.
APPLICATION FILED JUNE 19, 1911.

1,015,073.

Patented Jan. 16, 1912.

3 SHEETS—SHEET 1.



Attest
a. J. M. Cauley
E. B. Linn

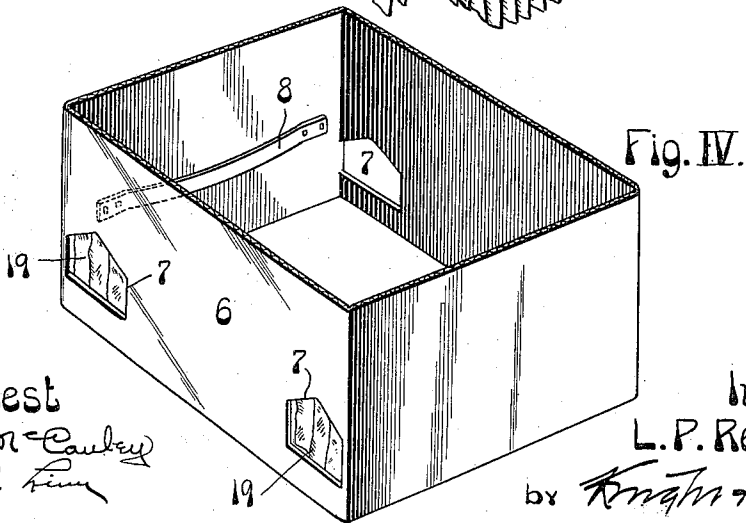
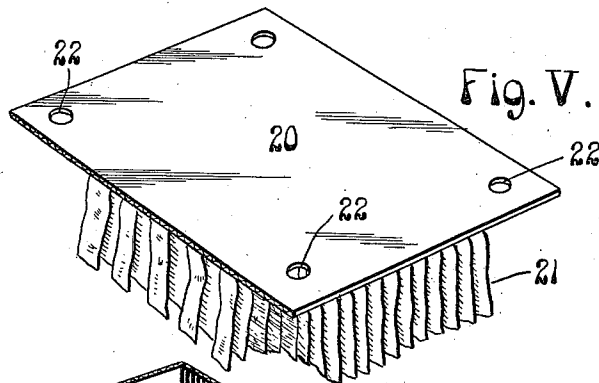
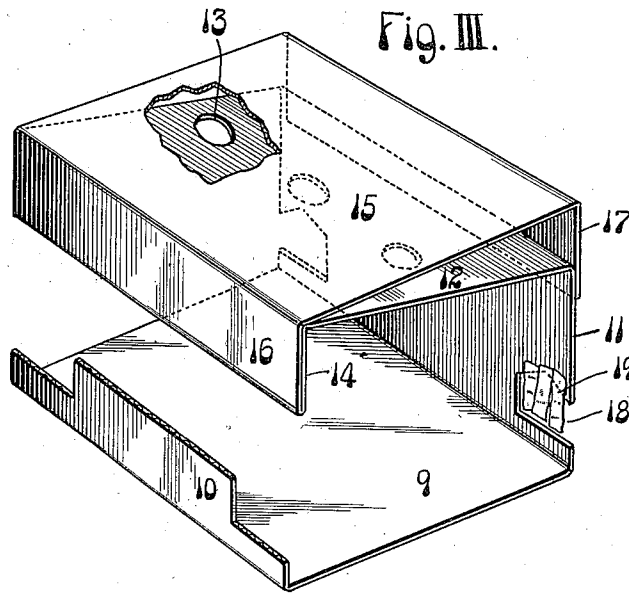
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3 SHEETS—SHEET 2.



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3 SHEETS—SHEET 3.

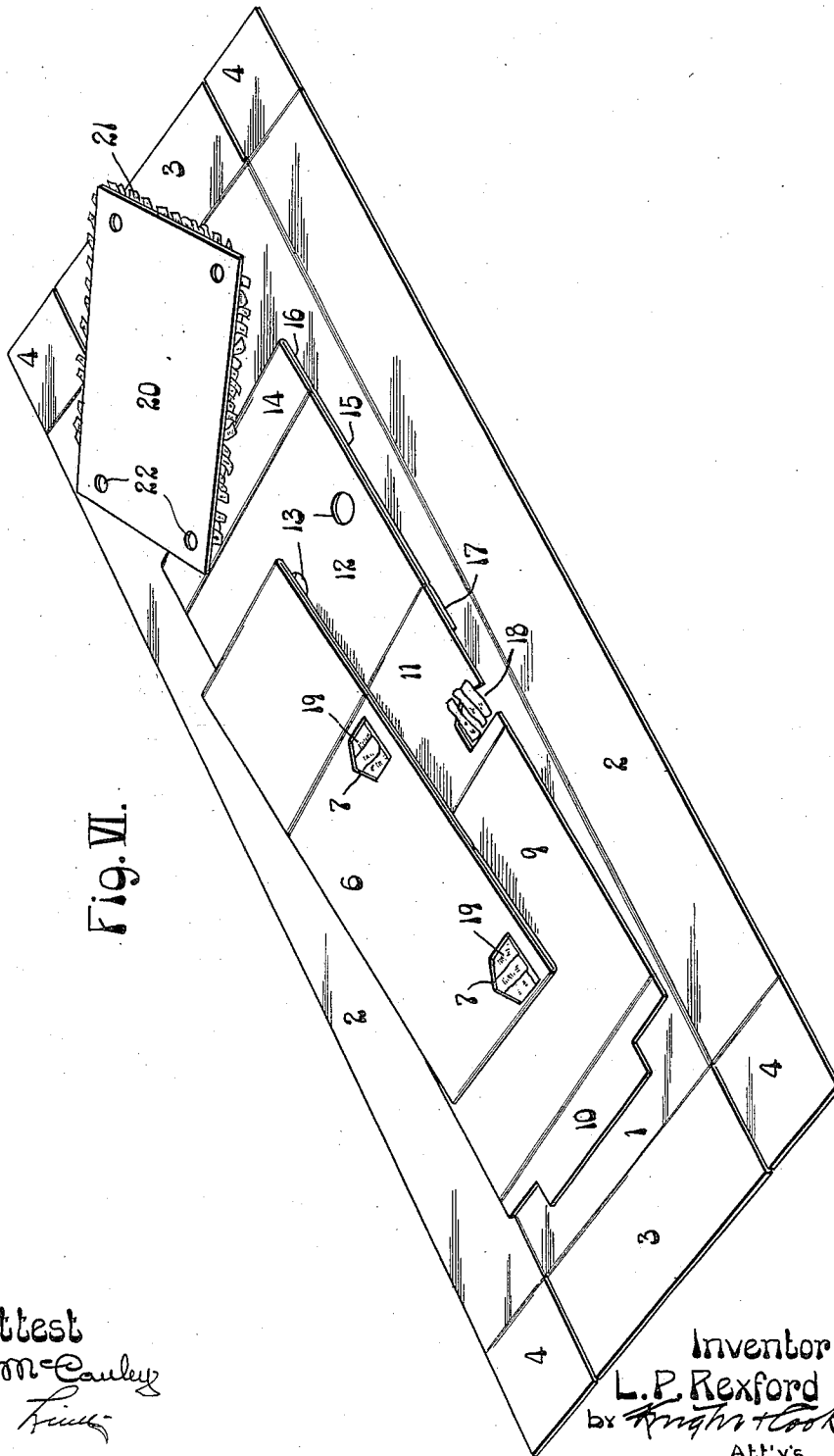


Fig. VI.

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UNITED STATES PATENT OFFICE.

LEY P. REXFORD, OF ST. LOUIS, MISSOURI.

KNOCKDOWN BROODER.

1,015,073.

Specification of Letters Patent.

Patented Jan. 16, 1912.

Application filed June 19, 1911. Serial No. 634,069.

To all whom it may concern:

Be it known that I, LEY P. REXFORD, a citizen of the United States, residing at St. Louis, in the State of Missouri, have invented certain new and useful Improvements in Knockdown Brooders, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

My invention relates to a brooder for the confinement and housing of newly hatched chicks, and it has for its object the production of an efficient yet extremely inexpensive structure, and one that is of knock down nature, whereby the brooder may be reduced to a minimum bulk when packed for transportation, when in storage, and when out of service.

Figure I is a perspective view of my brooder, with portions broken out to afford an insight into the interior of the brooder. Fig. II is an enlarged vertical section through two of the wall members of the brooder, and one of the clips used to hold the wall members in assemblage. Fig. III is a perspective view of the lining and hood entering into the structure of the housing chamber in the brooder. Fig. IV is a perspective view of the housing chamber box. Fig. V is a perspective view of the hoverer in the housing chamber. Fig. VI is a perspective view of the brooder in knock down condition.

In the accompanying drawings: A designates the main inclosure box of my brooder and B a housing chamber located within said outer box.

The main inclosure box A is produced from a single sheet of material, the sheet being creased or scored on certain lines to provide for the bending thereof to produce side and end box walls extending upwardly from a bottom or floor. The elements that enter into the inclosure box produced from a single sheet of material, as explained, are a floor 1, side walls 2, and end walls, the latter being composed of wall sections 3 extending upwardly from the floor 1, and sections 4 extending laterally from the ends of the side walls and lying against the faces of the sections 3. The walls of the single sheet box produced from the members recited are held in vertical positions by suitable means, such as clips 5, (see Figs. I and II), that straddle the end wall sections 3 and 4, and which, by holding these sections from separation and

from movement relative to each other, serve also to retain the side walls 2 in upright positions.

The housing chamber B includes as a main element a housing box 6 having open top and bottom ends, and of such dimensions transversely of the brooder that it fits snugly within the main inclosure box A between the side walls 2 against which its ends abut. The housing box is of very materially less dimensions longitudinally of the brooder than the space within the main inclosure box, thereby leaving a portion or portions of such space unoccupied by the housing chamber to furnish a yard or yards to and from which the chicks may pass. In the walls of the housing box 6 that face the end walls of the inclosure box are doorways 7 through which the chicks may pass to enter and leave the housing chamber B. Within the housing 6 is a lining and hood member made of a single sheet of material. This lining and hood member, most clearly seen in Fig. III, comprises a floor section 9, a tongue section 10, at one edge of said floor section, a vertical section 11 at the other edge of the floor section, a hood section 12 extending laterally from the upper end of the section 11 and overhanging the floor section. A pendent flap section 14, inserted in the housing box 6, extends from the edge of the hood section farthest from the lining section 11, and an auxiliary hood section 15 is located above the hood section 12. The auxiliary hood section is produced as a continuation from the hood section 12, is connected to the pendent flap 14 by a return bend section 16, and terminates in a downturned flap 17 movable between the vertical section 11 of the lining and the adjacent wall of the housing box 6. The hood section 12 of the lining and hood member is provided with perforations 13 to afford ventilation in the housing chamber, and the auxiliary hood section 15 above the section 12 is imperforate, its utility being that of a roof for the housing chamber. The vertical section 11 of the lining and hood member is provided with doorways 18 in registration with the adjacent doorway 7 in the housing box 6 to avoid obstruction of such doorways by said section. The doorways 7 and 18 are guarded by curtains 19.

In the housing member B is a hoverer comprising a board 20 and a cluster of pendent strips 21 of cloth, or other suitable material, that will accommodate themselves to the

movements of chicks beneath them, and serve to keep the chicks warm when they occupy the housing chamber B. The hoverer is loosely seated on brackets 8 supported by walls of the housing box 6 and it will, therefore, be apparent that, being light, it is susceptible of vertical movement under upward pressure thereagainst by the chicks, in order that the height of the space beneath the hoverer may be varied according to the crowding of the chicks thereunder, without any liability of the chicks being smothered, as they would be liable to be if there were no provision for vertical movement of the hoverer. The hoverer board 20 is provided near its corners with ventilation apertures 22, through which air may freely pass in circulating to and from the housing space beneath the hoverer.

The elements comprising the housing chamber B may be shifted at will longitudinally of the inclosure box A, to the side walls of which the housing box 6 is attached by clips 5. It will therefore be apparent that the housing chamber may be located centrally of the inclosure box to provide yards of uniform size exterior of the housing chamber, or so positioned as to render the yards of different dimensions. It will also be apparent that the housing chamber may be located entirely at one end of the inclosure box and the single yard be provided between the housing chamber and the opposite end of the closure box.

Particular attention is directed to the meritorious construction of the housing chamber B whereby provision is made for the most efficient ventilation of the housing chamber and the effectual closing of the upper portion of such chamber when the atmospheric temperature is low enough to demand the closing of the chamber to prevent the ingress of cold air thereinto through the top of the chamber. It will be noted that by the described structure, the hood section 12 may be elevated to the position in which it is seen in Fig. 1, in order that there may be free access of air into the housing box 6, and such hood section may be lowered from the position shown to any desired degree that will cause the entrance way for air to be more or less restricted, and will more or less restrict the circulation of air in an upward course through the housing chamber as it enters through the doorways in the housing box and passes upwardly from the compartment beneath the hoverer through the apertures in the hoverer board. When it is desired to prevent any circulation of air beneath the hood section 12 and over the side walls of the inclosure box A, the hood section may be lowered flush with the inclosure box and air may then circulate into or from the housing chamber through the apertures 13 in the

hood section. To prevent the circulation of air through the housing member in order that there may be no cooling of the interior of the chamber by circulation therein, the auxiliary hood section 15 may be entirely lowered to rest on the hood section 12, in which position it acts to close the apertures 13.

All of the parts of my brooder are collapsible, and the entire structure is, therefore, of knock down nature and may be folded into small bulk or compass for transportation, when in storage, or any other time when not in use, the various parts being shown in their knock down condition in Fig. VI. The parts are all of simple construction and, therefore, when the brooder is shipped in its knock down condition, it may be readily and quickly set up ready for use by anyone, with very slight labor, and again knocked down to remain in knock down condition after the brooder has been used and it is desired to lay it aside until there is need for its re-use.

The parts of my brooder are all preferably made of corrugated paper, as illustrated in the drawings, but it is obvious that any other suitable material may be used in lieu of corrugated paper.

I claim:—

1. In a brooder, a foldable housing box having an open top, and a removable lining in said housing box having a hood section for closing or partially closing the open top of said housing box when the brooder is in service.

2. Is a brooder, a foldable housing box having an open top, and a removable lining in said housing box having a hood section for closing or partially closing the open top of said housing box when the brooder is in service; the said hood section being hinged to a wall member of the lining and being provided at its free edge with a pendent supporting flap for engagement with the wall of said housing box.

3. In a brooder, a housing box, and a lining in said housing box, comprising a floor section, a wall section and a hood section hinged to each other, the said hood section being movable to close or partially close the top of said housing box.

4. In a brooder, a folding housing box, and a lining in said housing box, comprising a floor section, a wall section, and a hood section hinged to each other, the said hood section being movable to close or partially close the top of said housing box and being apertured to afford ventilation for the housing box when the hood is in closed position.

5. In a brooder, a folding inclosure box comprising a floor, side walls and end walls, a folding housing box in said inclosure box, open at its top and bottom, and a lining in

said housing box having a floor section for closing the bottom of said housing box, and having a vertically movable hood section for closing or partially closing the top of said housing box.

6. In a brooder, a folding inclosure box comprising a floor, side walls and end walls, a folding housing box in said inclosure box, open at its top and bottom, and a lining in said housing box having a floor section for closing the bottom of said housing box, and having an apertured hood section for closing or partially closing the open top of said housing box.

7. In a brooder, a folding inclosure box comprising a floor, side walls and end walls, a folding housing box in said inclosure box having an open upper end, a hood for clos-

ing or partially closing the open upper end of said housing box, and an auxiliary hood above said first mentioned hood.

8. In a brooder, an inclosure box comprising a floor, side walls and end walls, a housing box in said inclosure box having open lower and upper ends, and a lining in said housing box comprising a floor section, a vertically movable hood section for closing or partially closing the open upper end of said housing box, and a vertically movable auxiliary hood above said first mentioned hood.

LEY P. REXFORD.

In the presence of—

H. G. COOK,

E. B. LINN.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."