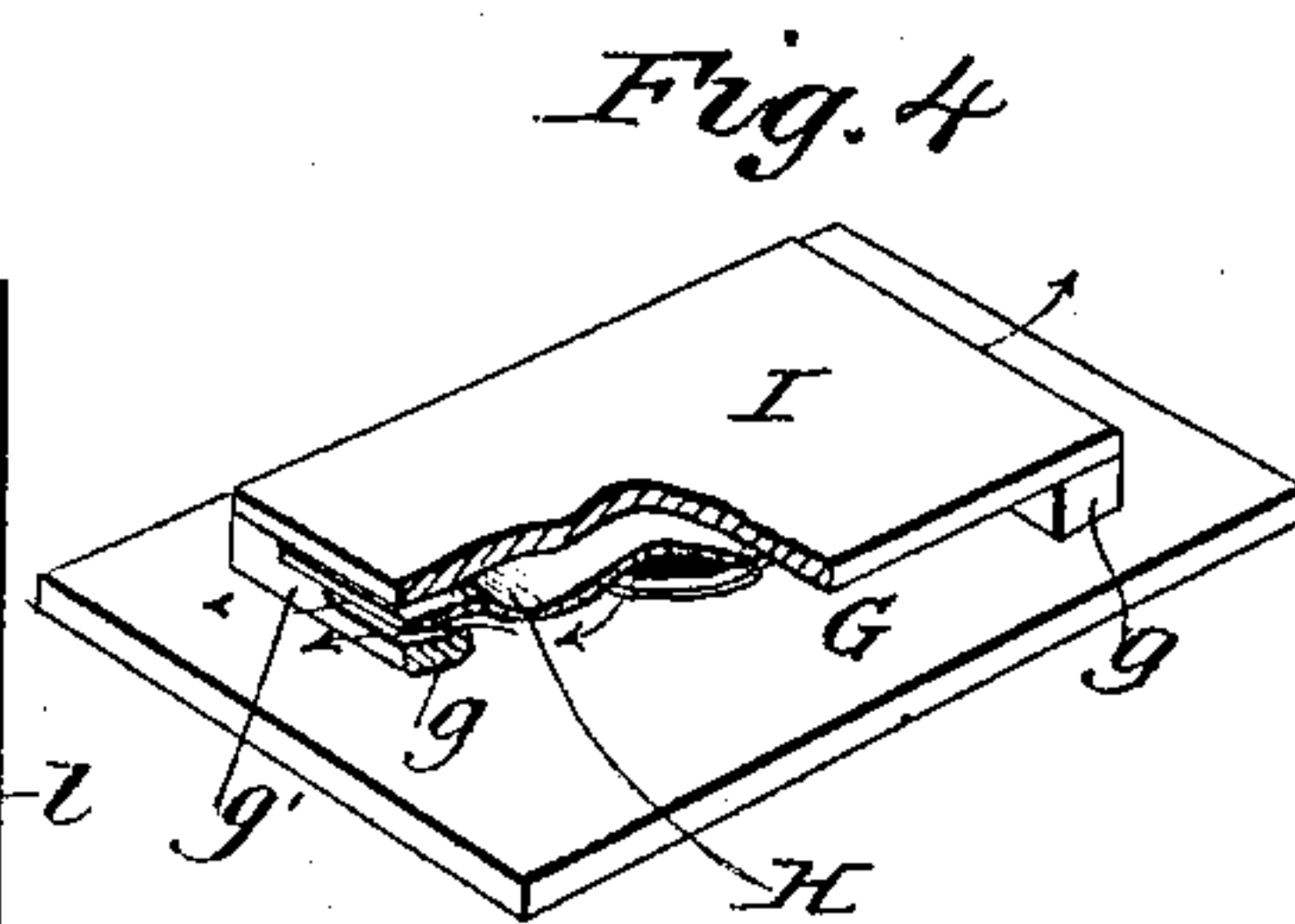
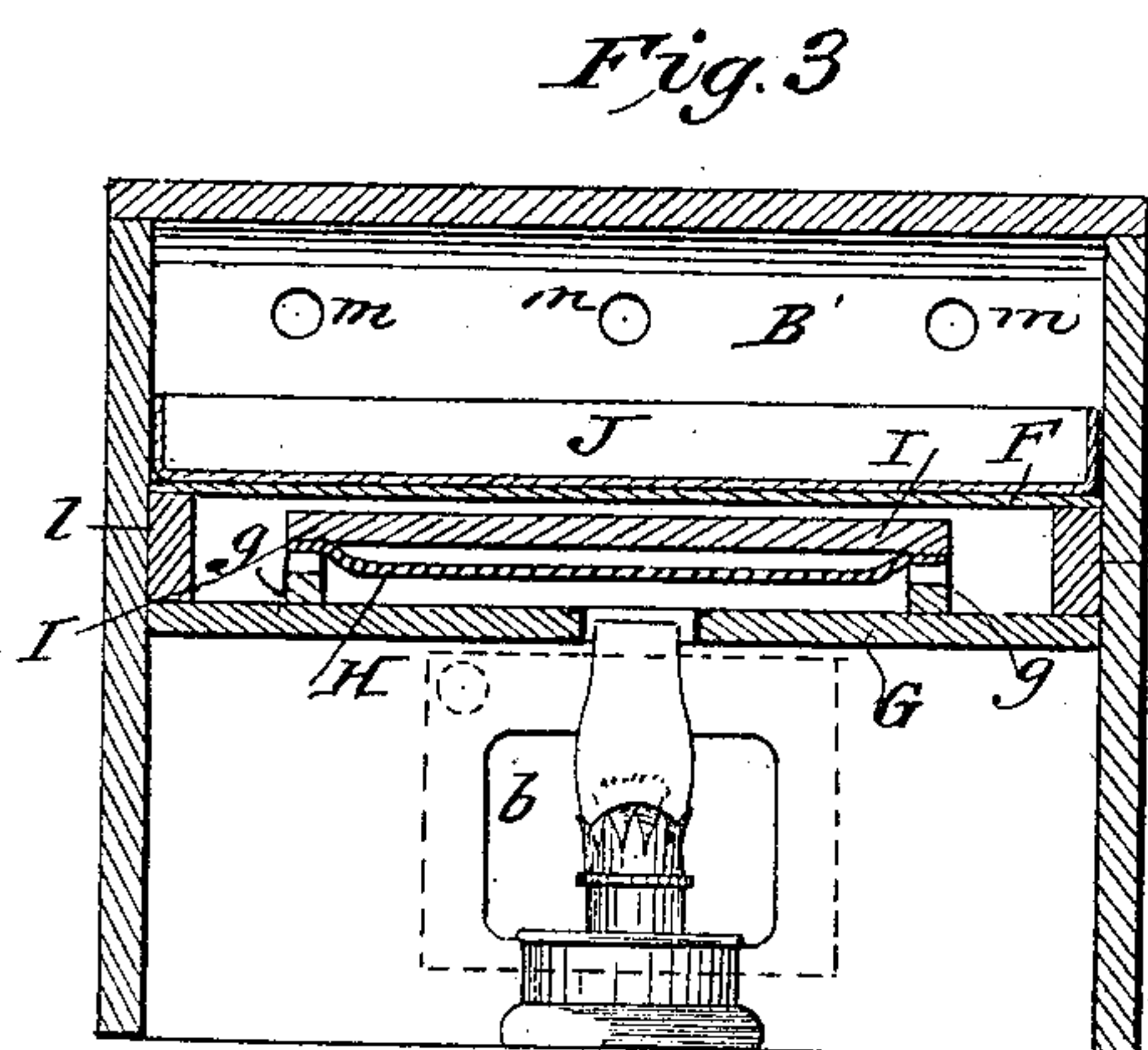
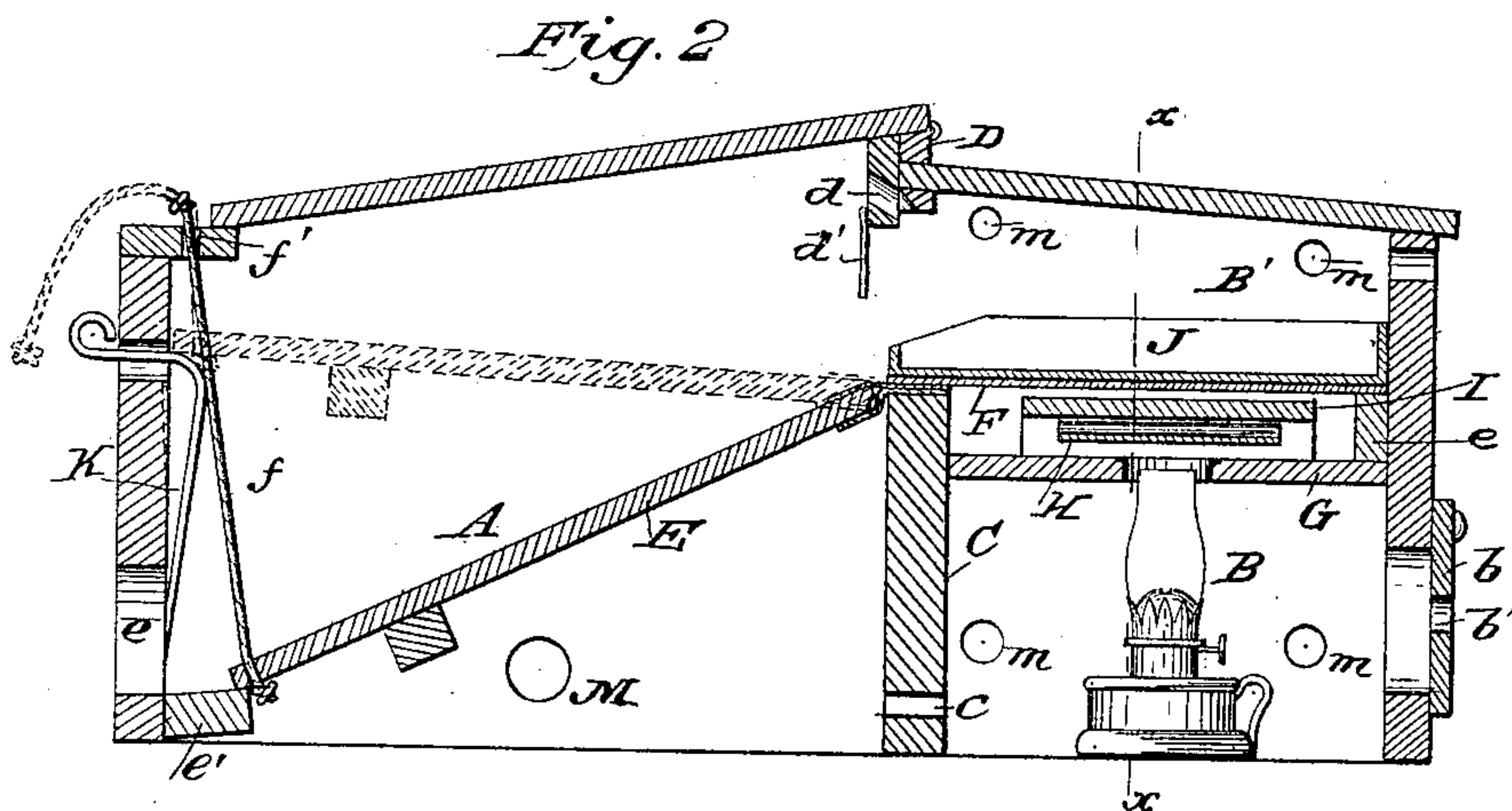
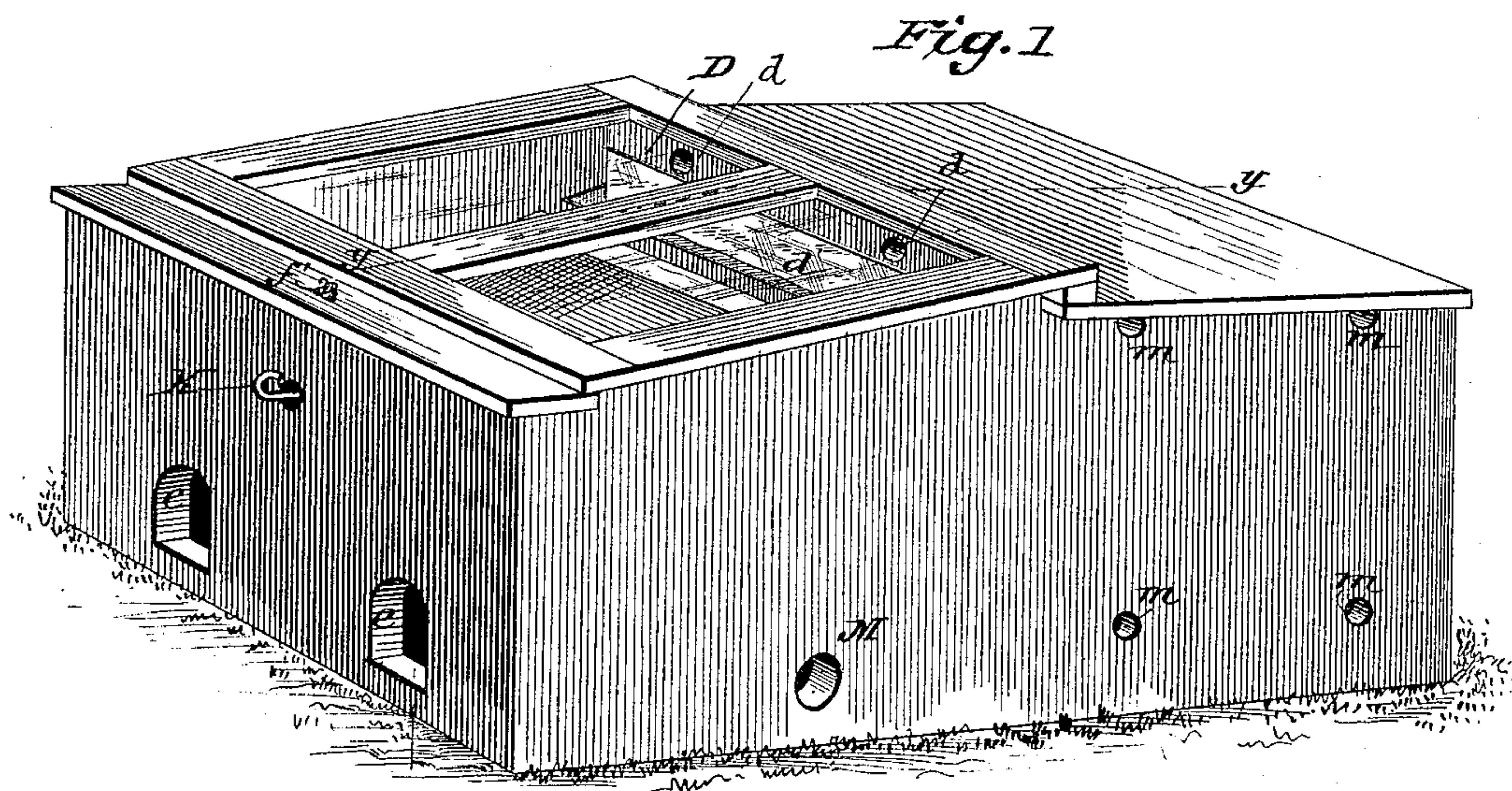


(No Model.)

J. D. WINGERT.  
CHICKEN BROODER.

No. 389,428.

Patented Sept. 11, 1888.



WITNESSES:  
*Fred G. Dieterich*  
*Geo. Brock*

INVENTOR  
*Jno. D. Wingert*  
BY *Munn & Co*

ATTORNEY



# UNITED STATES PATENT OFFICE.

JOHN D. WINGERT, OF FAYETTEVILLE, PENNSYLVANIA.

## CHICKEN-BROODER.

SPECIFICATION forming part of Letters Patent No. 389,428, dated September 11, 1888.

Application filed June 2, 1888. Serial No. 275,891. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN D. WINGERT, of Fayetteville, in the county of Franklin and State of Pennsylvania, have invented a new and useful Improvement in Chicken-Brooders, of which the following is a specification.

My invention relates to an improvement in chicken-brooders; and it consists in the peculiar construction and arrangement of parts, as hereinafter fully described, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a perspective view of my invention. Fig. 2 is a longitudinal section on the line *y y* of Fig. 1. Fig. 3 is a transverse section on the line *x x*, Fig. 2; and Fig. 4 is a detail perspective view, partly in section, of the heat-distributing apparatus.

The brooder consists of a rectangular box, which is bottomless and rests on the ground. This box is divided into two compartments, A and B, by a transverse partition, C, which reaches two-thirds of the height of the box. The partition is provided in its lower portion with the holes *c*, which serve as a means of ventilation between the two compartments A and B. A narrow transverse brace, D, is placed between the side walls at the top near the center of the box above the partition C. Hinged to the transverse brace is a lid fitted with glass windows, and which covers the front compartment, the top of which slants downward to the front. This brace is also provided with the perforations *d*, the purpose of which will be hereinafter described.

As the partition C does not reach entirely to the top of the box, a space is left above it. The compartment B is provided with the ledges *e* on its inner faces, to which is secured a piece of thin sheet metal, F. This sheet of metal is also secured to the top edge of the transverse partition C and forms the top of chamber B. By this construction a brooding-chamber, B', is formed above the plate F, on which the pan J rests, as will be hereinafter described.

Below the sheet-metal plate F, which closes

the compartment B tightly, is held in position, by pins or other suitable means, the heat-distributing apparatus, which consists of the base-plate G, made of thin sheet metal or other suitable material and having a central circular opening, and provided on its upper surface with the ridges *g*, which extend partially across it transversely. The upper edges of these ridges are hollowed out in a curve at their centers, said hollowed-out portions ending in the shoulders *g'*.

H is a plate of sheet metal, which is thicker than the plate G. This plate H is placed between the ridge *g* a slight distance above the plate G, and its ends are bent upward and outward and rest on the shoulders *g'* of the said ridges. Secured to the ridge *g*, and holding the plate H in place, is the top plate, I. The circular opening in the bottom plate, G, is to receive the chimney of the lamp placed in the lower part of the compartment B, and should be of greater diameter than the lamp-chimney.

The compartment B is provided with a small door, *b*, for convenience in regulating the flame of the lamp. This door has a small opening, *b'*, to serve as a ventilator.

On top of the plate F in the brooding-chamber B' is placed the brooding-pan J, in which is placed a thin layer of sand or other suitable material. The chimney of the lamp projects up through the circular opening in the plate G, which is somewhat greater in diameter than the said chimney. The purpose in making the circular opening larger than the chimney is to provide a means of draft for the lamp. All the heat of the lamp is directed against the plate H, which, by reason of its form and superior thickness, deflects the heat in all directions. The portion of the heat deflected toward its ends passes through the curved openings in the ridges *g* and strikes against the plate F or base of the brooding-chamber. The portion of the heat deflected toward the sides of the plate H passes upward, strikes the plate I, and is again deflected outward and upward against the plate F. Thus it will be seen that an even distribution of heat is obtained under the plate F, which forms the bottom of the



brooding-chamber B'. The pan J, containing the sand, rests loosely on the plate F, and may be withdrawn and cleaned when occasion requires it.

5 The plate H is made of thicker metal than the other plates, by virtue of which it receives more heat and retains it for a longer time. By means of this heat-distributing apparatus the sand or other material in the pan J may  
10 be kept at an even temperature over its entire surface, thus making it equally pleasant at all points for the young chickens, and thereby avoiding the crowding of the brood to the warmest spot, as is the case in brooders in which  
15 the heat is concentrated at one point.

The front wall of the front compartment or chamber is provided with the entrances *e e*, and has secured to its inner lower edge on a line with these entrances a sill, *e'*, which extends entirely across the compartment and has a slight upward inclination.

A gang-board, E, is hinged at one end to the upper edge of the partition C, and rests at its free end on the sill *e'*, thus forming an inclined  
25 way for the young chickens to pass to and from the brooding-chamber. Attached to the free end of the gang-board is a cord or chain, *f*, which passes through an opening in a cross-piece, *f'*, secured to the upper edge of the front wall, and is provided with a knot or  
30 handle. By means of this cord or chain the gang-board may be raised when necessary. The hinged cover of the front chamber rests on the cross-piece *f'*. A latch, K, formed of a piece of spring-wire or metal, is fastened at  
35 its lower end to the inner face of the front wall and extends upward a short distance, inclining inwardly, and is then bent horizontally forward and passes through an opening in the front wall, and is bent at its outer end to form  
40 an eye. In raising the gang-board E it bears against the inclined portion of the latch K and presses it forward until the said board has reached the shouldered portion of the latch,  
45 when the pressure ceases and the latch springs back to its normal position and holds the gang-board in a horizontal position in substantially the same plane with the brooding-chamber B'.

By raising the board E and holding it in an elevated position rats and other animals will be prevented from gaining an entrance to the brooding-chamber B' and injuring the chickens. When it is desired to allow the chickens to leave the brooder, by simply pulling out  
55 the latch K the gang-board drops and forms a passage from the brooding-chamber to the outside through the entrances *e e*.

The side walls of the front compartment are provided with the large holes M, through  
60 which the brood may enter the front chamber under the lowered gang-board. It will be seen that by this arrangement the young chickens may be protected from the rays of the sun in summer.

65 In winter, when it is desirable to secure the

aid of the sun's rays, the gang-board may be raised and secured, thus forming with the brooding-chamber a continuous upper compartment, in which the young chickens may run at will.

The condition of the brood may be watched through the glass windows in the hinged cover to the front compartment.

The perforations *d* in the brace D serve as a means of ventilation between the brood-chamber and the front compartment and tend to equalize the temperature of the entire apparatus. The brace D is also provided with a curtain, *d'*, which hangs down in front of the brooding-chamber and prevents the escape of  
80 too much heat.

The side and end walls of the brooder are provided with the ventilating-perforations *m*.

The plates G and I may be made of wood or sheet metal, as desired. When the plate  
85 G is made of wood, the central opening, which receives the chimney of the lamp, is fitted with a sheet-metal lining.

Having thus fully described my invention, what I claim as new is—

1. The heat-distributing apparatus for chicken-brooders, consisting of the sheet-metal plate G, having a central opening and provided on its upper surface with the transverse metal ridges extending partially across  
95 it, and a thick deflecting-plate resting on said ridges and held in place by an upper sheet-metal plate secured at its ends to the said ridges, substantially as shown and described.

2. The heating apparatus for chicken-brooders, consisting of the top plate, F, secured to the transverse partition C, and the inner walls of the compartment B, the plate G, having a circular central opening and provided with the transverse ridges *g*, said ridges being  
105 hollowed out on their upper edges and having the shoulders *g'*, the deflecting-plate H, bent upward and outward at its ends and resting on the said shoulders *g'*, and the top plate, I, secured to the ridges *g*, in combination with  
110 the heating-lamp, substantially as shown and described.

3. A chicken-brooder consisting of a rectangular box having the transverse partition extending to within a short distance of the  
115 top of said box and forming two lower compartments, the plate F, secured to the upper edge of the said partition and to the ledges *e*, forming the heating-chamber B, the swinging gang-board E, hinged to the upper front edge  
120 of the transverse partition, the cord or chain *f*, for raising said gang-board to a horizontal position, and means, substantially as described, for holding the gang-board in its horizontal position, whereby a continuous upper cham-  
125 ber is formed, as specified.

4. In a chicken-brooder, the combination, with the compartment A, having the swinging gang-board E, of the brooding-chamber B', the brace D, provided with the curtain *d'*, and  
130



the ventilating-perforations *d*, and the heating-chamber B, substantially as shown and described.

5 In a chicken - brooder, the combination, with the heating-chamber B, provided with a heat-distributing apparatus, of the front compartment, A, provided with the entrances *e e*, and having the swinging gang-board E, hinged

to the partition C, the cord or chain *f*, for raising the gang - board, and the spring-latch 10 K, for holding the said gang-board in its raised position, substantially as shown and described.

JOHN D. WINGERT.

Witnesses:

H. REBER,

GEORGE S. WINGERT.