

G. H. KICHLINE & F. J. STUDER.
 BROODER OR POULTRY HOUSE HEATER.
 APPLICATION FILED NOV. 6, 1912.

1,057,348.

Patented Mar. 25, 1913.

Fig. 1.

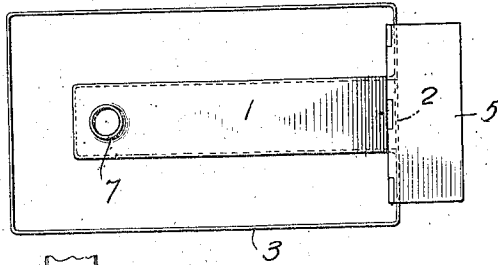


Fig. 2.

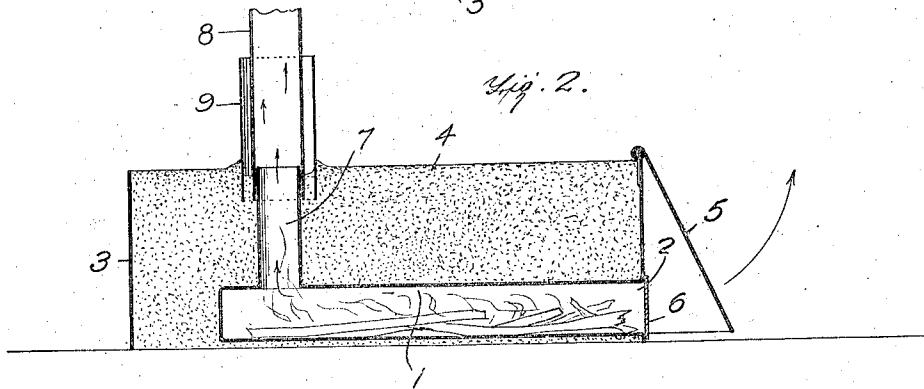


Fig. 3.

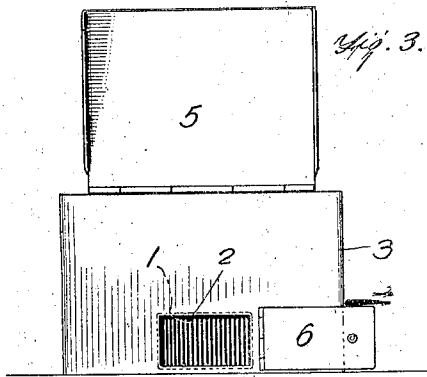


Fig. 4.

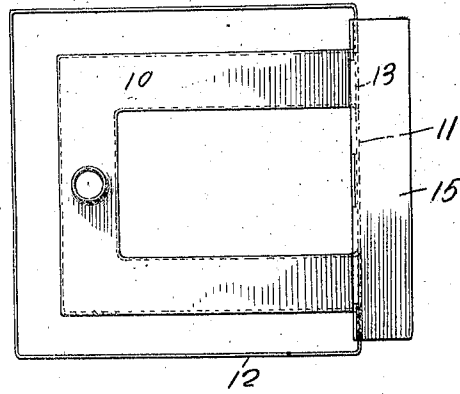
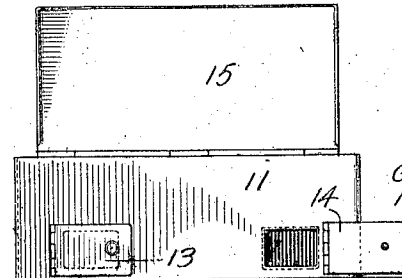


Fig. 5.



WITNESSES

*L. H. Sp...
 Myron A. Clear*

INVENTORS
 GEORGE H. KICHLINE
 FRANK J. STUDER;
 BY *Munn & Co.*
 ATTORNEYS

UNITED STATES PATENT OFFICE.

GEORGE H. KICHLINE AND FRANK J. STUDER, OF NEW WASHINGTON, OHIO.

BROODER OR POULTRY-HOUSE HEATER.

1,057,348.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that we, GEORGE H. KICHLINE and FRANK J. STUDER, citizens of the United States, and residents of New Washington, in the county of Crawford and State of Ohio, have invented an Improvement in Brooder or Poultry-House Heaters, of which the following is a specification.

Our invention relates to heaters, and more particularly a heater adapted for use in connection with brooders or brooder houses and poultry-houses of other characters, our object being to provide a simple and inexpensive construction and an arrangement whereby to properly radiate the heat and at the same time prevent the fowls and young chicks from direct contact with the heater itself.

With these and other objects, our invention resides in the structures shown in the accompanying drawing, to which particular reference is made in the following specification, and in which—

Figure 1 is a plan view with the smoke pipe and its collar removed. Fig. 2 is a central longitudinal section through the heater as it is used. Fig. 3 is a front elevation, with the shield in raised position. Fig. 4 is a similar view of a modified form of heater, and Fig. 5 is a plan view of the heater illustrated in Fig. 4.

Referring now to these figures and particularly to Figs. 1 to 3 inclusive, we provide a main tubular fire-box 1, the inner end of which is closed and the outer end of which is secured to surround the inner portion of an opening 2 formed through one end wall of a sand box 3. As is clearly indicated in Fig. 2, the height of the sand box 3 is considerably greater than that of the fire-box 1, and its sides and one end are spaced from the fire-box so as to receive and hold a quantity of sand, indicated at 4 in Fig. 2, and which entirely surrounds the fire-box.

The sand-box 3 is open at its top and base, and has a shield 5 which is hinged to the upper edge of its apertured wall and is movable to and from a position covering the opening 2 and its door 6 which is hinged to said end wall of the sand box at one side of the opening. The door 6 may be moved to control the draft by first raising the hood or shield 5, the latter being lowered upon the door in order to prevent the fowls or young chicks from approaching the fire-box.

At the inner end of the fire-box rises a

tubular fitting 7, which receives the lower end of the outlet flue or smoke-pipe 8, the latter of which extends upwardly through the sand in use and through the roof of the house or other structure within which the heater is placed. A collar 9 of considerably greater diameter than the outlet flue or smoke pipe 8 is adapted to surround the same or rather the hottest portion thereof nearest the heater, the lower portion of which collar may be pressed into the sand, which will thus form a support and maintain it in spaced relation with the pipe. This collar further serves to protect the fowls or chicks from direct contact with the highly heated portions of the structure.

In accordance with the form of our invention as illustrated in Figs. 4 and 5, the fire-box 10 is U-shaped and communicates at its ends through two openings in the wall 11 of the sand box or frame 12, the latter being provided with doors 13 and 14 controlling these openings and with a single shield 15 of sufficient width to cover both of the doors. This structure is suitable for large chicken-houses where increased heat is desirable, and except for two fuel-receiving openings to the fire-box and a generally increased heating capacity including an increased sand space within the sand box, its operation is identically similar with the structure described in connection with Figs. 1 to 3.

We claim:—

1. A heater for brooder or chicken houses and the like, comprising a fire-box having a fuel and draft opening, a door for said opening, an outlet flue for the fire-box, a sand box having connection with and surrounding the fire-box, and a shield hinged to the said sand box and adapted to extend over the fire-box opening and its door.

2. A heater for brooder or chicken houses and the like, comprising a fire-box having a fuel and draft opening, a door for said opening, an outlet flue for the fire-box, a sand box having connection with and surrounding the fire-box and consisting of a frame forming a support for sand packed around the fire-box, which frame is of substantially greater height than the fire-box, and a shield hinged to the upper edge of a portion of the frame and movable downwardly to cover the said fire-box opening and its door.

3. A heater for brooder or chicken houses and the like, comprising a sand box con-

sisting of an open frame having an aperture at one side, a fire-box within the frame having an open end secured to the frame to surround the said aperture, a door hinged to the frame at one side of its aperture, a shield hinged to the frame above the aperture and adapted to cover both the aperture and its said door, and an outlet flue extend-

ing upwardly from the fire-box within the sand box.

GEORGE H. KICHLINE.
FRANK J. STUDER.

Witnesses:

A. A. DE ROCHE,
WM. KAHLER.