

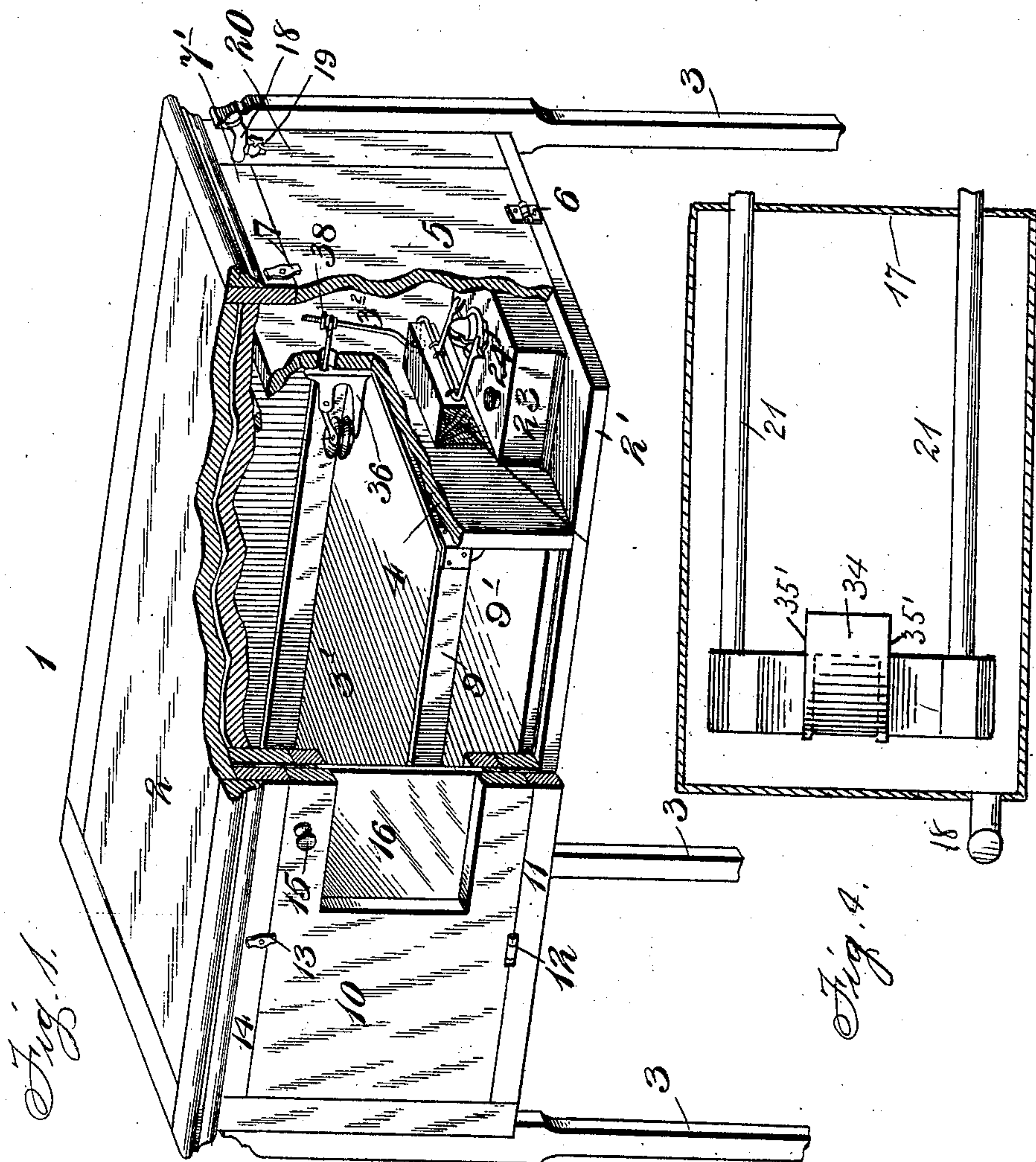
No. 828,490.

PATENTED AUG. 14, 1906.

F. LINSTROM.
INCUBATOR.

APPLICATION FILED SEPT. 21, 1905.

2 SHEETS—SHEET 1.



Frank Linstrom Inventor

Witnesses
W. H. Curawick
C. C. Troth.

By John S. Duffie

Attorney

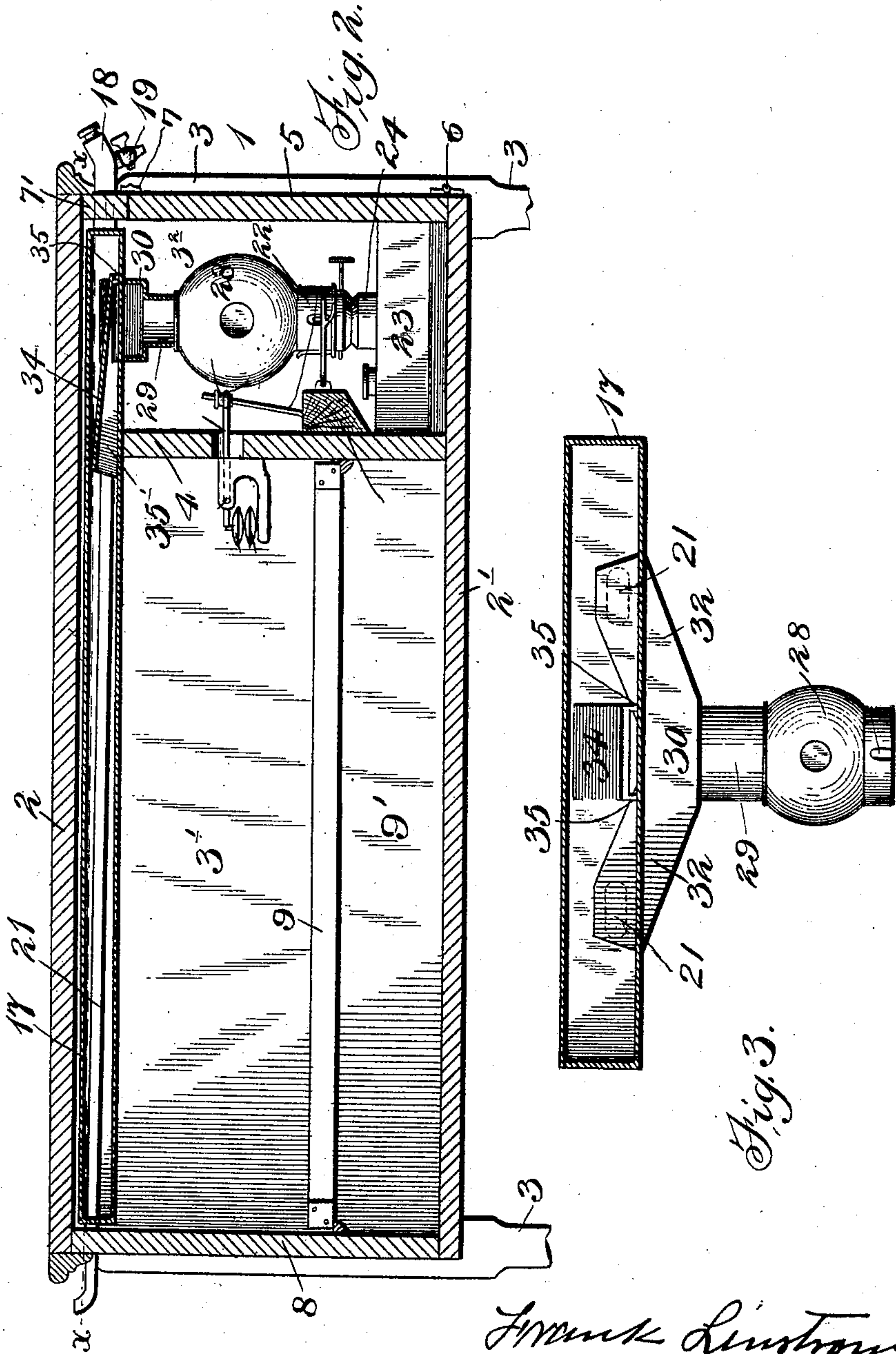
No. 828,490.

PATENTED AUG. 14, 1906.

F. LINSTROM.
INCUBATOR.

APPLICATION FILED SEPT. 21, 1905.

2 SHEETS—SHEET 2.



Witnesses
W. H. Curand
B. C. Trott.

Frank Linstrom Inventor

By John S. Duffie Attorney

UNITED STATES PATENT OFFICE.

FRANK LINSTROM, OF CASTLEWOOD, SOUTH DAKOTA.

INCUBATOR.

No. 828,490.

Specification of Letters Patent.

Patented Aug. 14, 1906.

Application filed September 21, 1905. Serial No. 279,549.

To all whom it may concern:

Be it known that I, FRANK LINSTROM, a citizen of the United States, residing at Castlewood, in the county of Hamlin and State of South Dakota, have invented new and useful Improvements in Incubators, of which the following is a specification.

My invention has relation to new and useful improvements in incubators, and has for its object the production of a device of this class by means of which the temperature of the incubator may be easily regulated or controlled and that will produce a more thorough circulation of the water in the water-tank, and therefore a greater uniformity of heat and hatching of the chickens.

With these objects in view my invention consists in the novel construction, combination, and arrangement of parts, as will be hereinafter described.

In the accompanying drawings, in which like parts are designated by like characters throughout the several views, Figure 1 is a perspective view of my invention, one portion thereof being broken away for the purpose of showing the interior mechanism. Fig. 2 is a longitudinal vertical sectional view of my invention. Fig. 3 is an end view of the water-tank, water-circulator, lamp-globe, and spreader conducting the heat to the heat-flues, the ends of which are shown in dotted lines. Fig. 4 is a top plan view of my water-tank, heat-flues, water-circulator, supply-tube, and spreader, the water-tank being cut transversely on the line X X of Fig. 2.

My invention is described as follows:

The numeral 1 represents my improved incubator, consisting of an oblong rectangular box provided with the usual top 2, bottom 2', and legs 3. Said incubator is also divided into two compartments 3' and 3² by means of a cross-partition 4.

The front end of my incubator is closed in by means of a door 5, the lower end of which is hinged to the front outer end of said bottom 2' by means of a hinge 6, the upper end of said door being held in position by means of a button-cleat 7, pivoted at its central part to the upper part of a cross-brace 7'.

The rear end of my incubator is closed in by a wall 8. Secured to the inner faces of said partition 4 and wall 8 in any suitable substantial way are the ends of an egg-tray 9, said egg-tray being secured at such dis-

tance above the said bottom 2' as to provide a chicken-nursery 9'.

The front side of my incubator is preferably closed in by a longitudinal door 10, the lower part of which is hinged by means of a hinge 12 to a longitudinal brace 11, secured to the front outer edge of said bottom, the upper part of said door being held in position by means of a button-cleat 13, pivoted at its central part to an upper longitudinal brace 14. Said door is also provided with an ordinary door-knob 15 and window 16.

By providing my improved incubator with a front end door 5 and longitudinal door 10 I thus afford an expedient and convenient means for gaining access thereto. Secured to the upper part of my incubator and running its entire length is a water-tank 17, said tank being supplied with or emptied of water by means of a supply-tube 18, provided with a nozzle 19, one end of said tube extending inwardly through a perforation in a vertical brace 20 and being secured to the front outer end of said water-tank.

My incubator is provided also with two parallel longitudinal heat-flues 21, located within the said water-tank, the outer free ends of said flues passing through perforations in one end of said water-tank and the upper end of said end wall 8. Located within the said compartment 3² is a lamp 22, consisting of an oil-tank 23, burner-head 24, and globe 28. Secured to the top of said globe in any suitable way is a circular heat-flue 29, the upper part of which terminates in a spreader 30, the arms 32 of which extend upwardly through the bottom of the tank and receive the ends of the heat-flues 21, which are shown by dotted lines. Located within the said water-tank 17 immediately above the said heat-flue 29 is a water-circulator 34, the front end of which terminates in two downwardly-extending legs 35. Said water-circulator is also provided with two parallel side walls 35'.

When in use, the heat passes up through the upper part of the lamp to the heat-flue 29 and thence upwardly to the spreader 30, which in turn, by means of the arms 32, conveys the heat to the front ends of the said heat-flues 21. (Shown in dotted lines, see Fig. 3.) The heat from the lamp comes in direct contact with that part of the bottom of the tank 17 which is immediately below the said water-circulator, and, as is obvious,

causes a boiling or bubbling of the water in that part of the tank, causing the water to be precipitated against the side walls of said water-circulator, thus producing a circulation of the water in the tank. This method of producing a substantially uniform circulation of the water is one of great merit, as it causes a uniformity of the temperature of the incubator and hatching of the chickens.

Secured to the inner face of the partition 4 is a bracket 36, provided with two thermostatic pads adapted to operate a lever 38, which in turn regulates the flame of the lamp.

Having described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. An incubator, consisting of an oblong rectangular box, provided with the usual top 2, and bottom 2'; a cross-partition 4, dividing said box into a front compartment 3', and rear compartment 3'; a door 5, closing in the front end of said incubator; an egg-tray 9, removably secured in said compartment 3', leaving a space under said tray; a door 10, in the front side of said incubator; a water-tank 17, secured in the upper part of said incubator; a supply-tube 18, connecting with said tank 17; two longitudinal heat-flues 21, located within said tank, their outer free ends passing through perforations in the rear end of said tank and incubator; a lamp 22, located in said front compartment 3'; a circular heat-flue 29, secured to the top of the lamp-globe 28, of said lamp; a spreader 30, secured to the upper part of said heat-flue 29 and provided with arms 32, extending upwardly through the bottom of said water-tank and receiving the front ends of said heat-flues, and a water-circulator 34, located within said water-tank immediately above said heat-flue 29, said water-circulator terminating at its front end in two downwardly-extending legs 35, and provided with side walls 35', substantially as shown and described and for the purposes set forth.

2. In an incubator, the combination of an oblong rectangular box, provided with a door in its front end and front side, respectively; an egg-tray, removably secured in said box; a water-tank, secured in the upper part of

said box; a supply-tube, provided with a nozzle, connecting with the said water-tank; heat-flues, running longitudinally in said tank; a lamp provided with a lamp-globe, located in the front end of said box; a circular heat-flue, secured to the top of the lamp-globe of said lamp, a spreader secured to the upper part of said circular heat-flue and provided with arms, which extend upwardly through the bottom of said tank, and receive the front ends of said heat-flues, said lamp being adapted to have its flame regulated by a thermostat, substantially as shown and described and for the purposes set forth.

3. In an incubator, the combination of a lamp provided with a lamp-globe, located in the front end thereof; a circular heat-flue, secured to the top of the lamp-globe of said lamp; a water-tank, secured in the upper part of said incubator; heat-flues, running longitudinally in said tank, and a spreader secured to the top of said circular heat-flue and provided with arms, which extend upwardly through the bottom of said water-tank and receive the front ends of said heat-flues, the said lamp being adapted to have its flame regulated by a thermostat, substantially as shown and described and for the purposes set forth.

4. In an incubator, the combination of a rectangular oblong box; a cross-partition, dividing said box into a rear compartment and front compartment; an egg-tray, removably secured in said rear compartment of said box, above its bottom, leaving a space under said tray; a water-tank, secured in the upper part of said box; a supply-tube, connecting with said water-tank; heat-flues, running longitudinally in said tank, and a lamp located in said front compartment, the flame of the lamp being regulated by a thermostat, substantially as shown and described and for the purposes set forth.

In testimony whereof I affix my signature in presence of two subscribing witnesses.

FRANK LINSTROM.

Witnesses:

W. N. SKINNER.

M. PAULSON.