

No. 675,260.

Patented May 28, 1901.

L. S. BACHE.
INCUBATOR.

(Application filed Feb. 13, 1901.)

(No Model.)

Fig. 1.

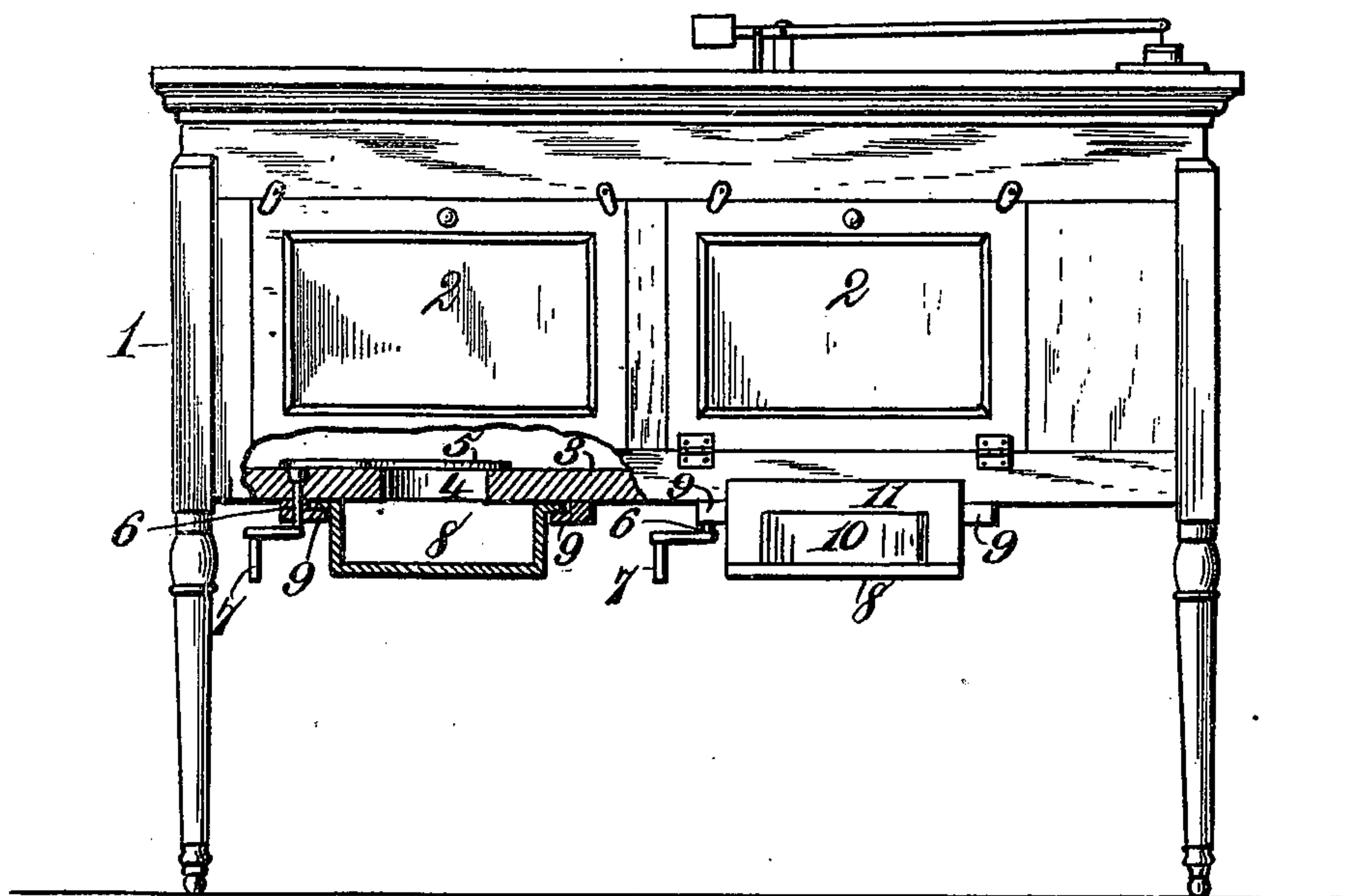
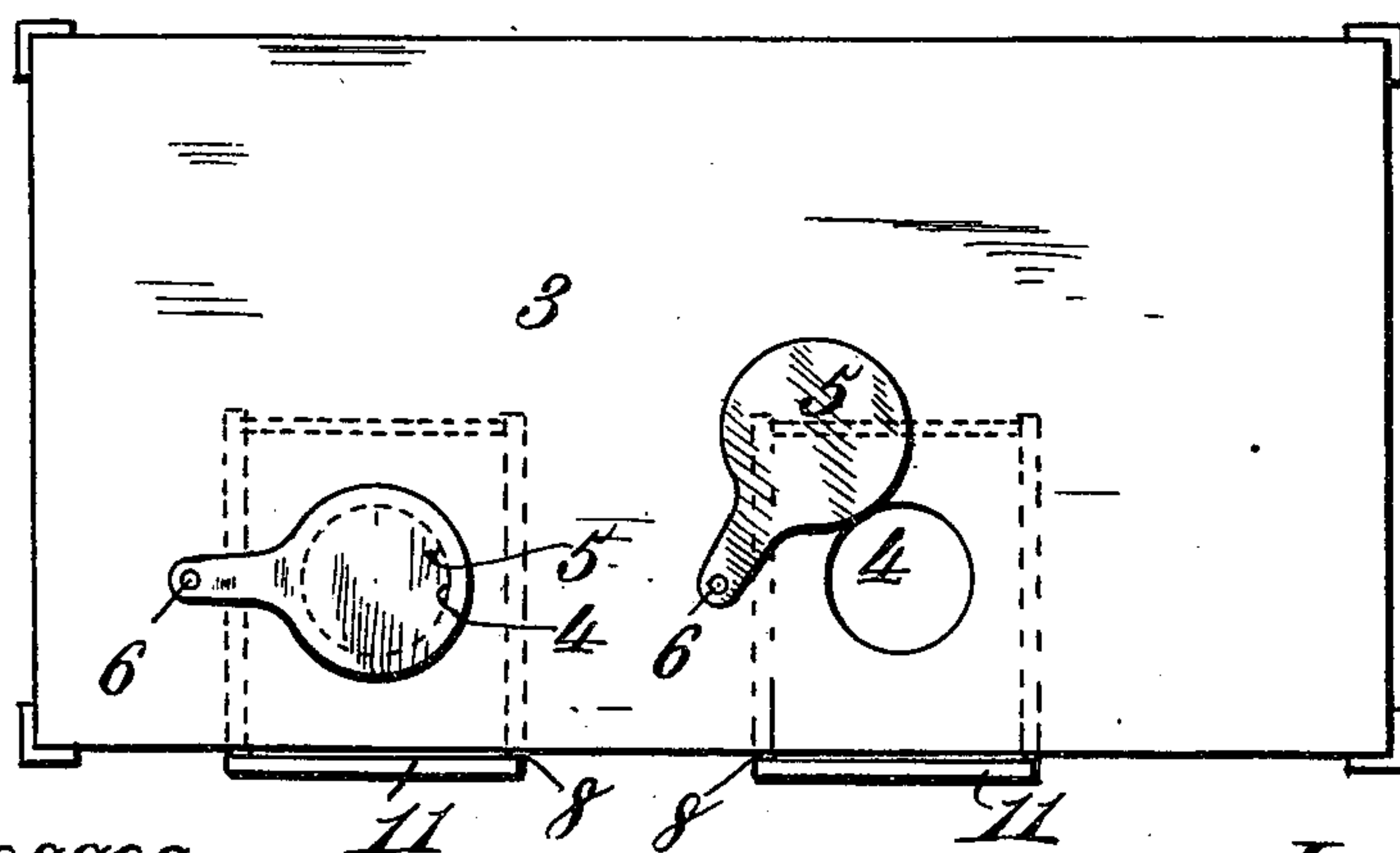


Fig. 2.



Witnesses,
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Inventor,
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UNITED STATES PATENT OFFICE.

LEIGH S. BACHE, OF BOUNDBROOK, NEW JERSEY.

INCUBATOR.

SPECIFICATION forming part of Letters Patent No. 675,260, dated May 23, 1901.

Application filed February 13, 1901. Serial No. 47,150. (No model.)

To all whom it may concern:

Be it known that I, LEIGH S. BACHE, a citizen of the United States, residing at Boundbrook, in the county of Somerset and State of New Jersey, have invented new and useful Improvements in Incubators, of which the following is a specification.

My invention relates to an improvement in incubators, and has for its object to provide means for removing the chickens from the incubator as they are hatched without the necessity of opening the incubating-chamber to the outer air. The provision of such means has become of great importance in the art of artificial incubation, as it is well known to those acquainted with this art that if the door of the incubator be opened after the eggs commence to pip or, in other words, after the chicks commence to hatch there will be danger of ruining or at least greatly impairing the balance of the hatch. The opening of the doors of the incubator, however, often becomes necessary, for the reason that early in the spring and during the winter months eggs often hatch slowly. Some eggs will hatch during the nineteenth day of incubation, while others in the same machine will not hatch until the twenty-second or twenty-third day. It will at once be seen that to leave the chicks first hatched in the machine until the last ones are hatched would be impracticable, and to open the door to take out the early chicks means practically death to the later ones. By opening the door of the incubator the machine at once cools off, the moisture contained in the egg-chamber escapes, and the chicks that are left dry up in the shell to such an extent that it becomes impossible for them to get out. By this means great numbers of chicks are destroyed each year, and the loss to the operator is considerable. According to my invention I provide an opening in the bottom of the incubating-chamber or of each incubating-chamber, if there be more than one, and a slide to cover said opening. Beneath the opening I arrange a drawer closed on all but the top side, which fits snugly against the bottom of the incubator. By moving the slide to uncover the opening the chicks may fall through into the drawer, and then the slide is closed. The drawer may now be removed and the chicks conveyed to the brooder. By this construc-

tion it will be seen that the chicks may be removed from time to time from the incubator without permitting the heat to escape therefrom or cold air to pass into the same.

In order that my invention may be more clearly understood, I have illustrated the same in the accompanying drawings, in which—

Figure 1 is a view of an incubator provided with my improvement, one of the incubating-chambers being shown partly in section to illustrate the closable opening therein; and Fig. 2 is a plan view of the floor of the incubator.

The numeral 1 indicates an incubator of the type having two incubating-chambers 2, although the invention may be applied equally as well to an incubator having only one of such chambers or three or more. In the bottom 3 of each incubating-chamber I provide an opening 4, closed by a pivoted slide 5, slightly larger than said opening and resting on the upper side of said bottom 3, as shown. The slide 5 is secured at one side on the upper end of a rod 6, which extends through and is suitably journaled in the bottom 3 of the incubating-chamber, said rod being bent at right angles to itself at its lower end to provide a handle or lever 7 for turning the same. By turning the rod 6 in one direction or the other the slide 5 will be moved to one side to uncover the opening 4 or to cover said opening, as the case may be. Beneath the opening 4 I provide a drawer 8, sliding on guides 9, secured on the under side of the bottom 3. The drawer 8 has preferably a glass front 10 and is provided with a top piece or ledge 11, closing against the front of the incubator and limiting the inward movement of the drawer, as well as forming a practically air-tight closure.

The slide 5 remains closed during the entire time of incubation and during the early period of the hatching process and is only opened when a sufficient number of chicks are out to necessitate their removal from the incubating-chamber that they may have the proper care from the attendant. When the slide is turned to uncover the opening, which is done by turning the lever 7 underneath the machine, as previously explained, the chicks fall through said opening into the drawer, and when all of the chicks have been

thus removed from the incubating-chamber the slide is again turned to cover the opening and the hatch proceeds without interruption. No heat has escaped, and the moisture, so necessary to keep the chicks from drying up in the shell, is retained in the machine. My invention also permits the chicks to be removed from the incubator and placed in the brooder without handling by the attendant, which is of great advantage as tending to promote the health of the chicks.

I have described herein and shown in the drawings a simple embodiment of my invention. It is obvious, however, that various changes in the form, construction, and arrangement of parts could be made without departing from the spirit of my invention, and I wish it understood, therefore, that I do not desire to be limited to the precise details of construction shown and described herein except in so far as the same may be indicated in the claims.

Having thus fully described my invention, what I claim as new, and desire to protect by Letters Patent of the United States, is—

1. In an incubator, in combination with an incubating-chamber having an opening provided in its bottom, a removable receptacle located beneath said opening.
2. In an incubator, in combination with an incubating-chamber having an opening provided in its bottom, means for closing said opening, and a removable receptacle located beneath said opening.
3. In an incubator, in combination with an incubating-chamber having an opening pro-

vided in its bottom, means for closing said opening, and a removable receptacle mounted on the bottom of said incubating-chamber and beneath said opening.

4. In an incubator, in combination with an incubating-chamber having an opening provided in its bottom, means for closing said opening, and a drawer slidably mounted on said bottom beneath said opening.

5. In an incubator, in combination with an incubating-chamber having an opening provided in its bottom, a drawer slidably mounted on said bottom beneath said opening, a slide for covering said opening, and means for moving said slide.

6. In an incubator, in combination with an incubating-chamber having an opening provided in its bottom, a drawer slidably mounted on said bottom beneath said opening, a slide for covering said opening, and means located on the outside of said incubating-chamber for moving said slide.

7. In an incubator, in combination with an incubating-chamber having an opening provided in its bottom, a removable receptacle mounted on said bottom beneath said opening, and means for covering and uncovering said opening.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

LEIGH S. BACHE.

Witnesses:

FRED CORIELL,
W. H. HEART.