No. 808,117. PATENTED DEC. 26, 1905.

J. S. SHOEMAKER.

EGG TESTER.

APPLICATION FILED APR. 18, 1905.

2 SHEETS—SHEET 1.

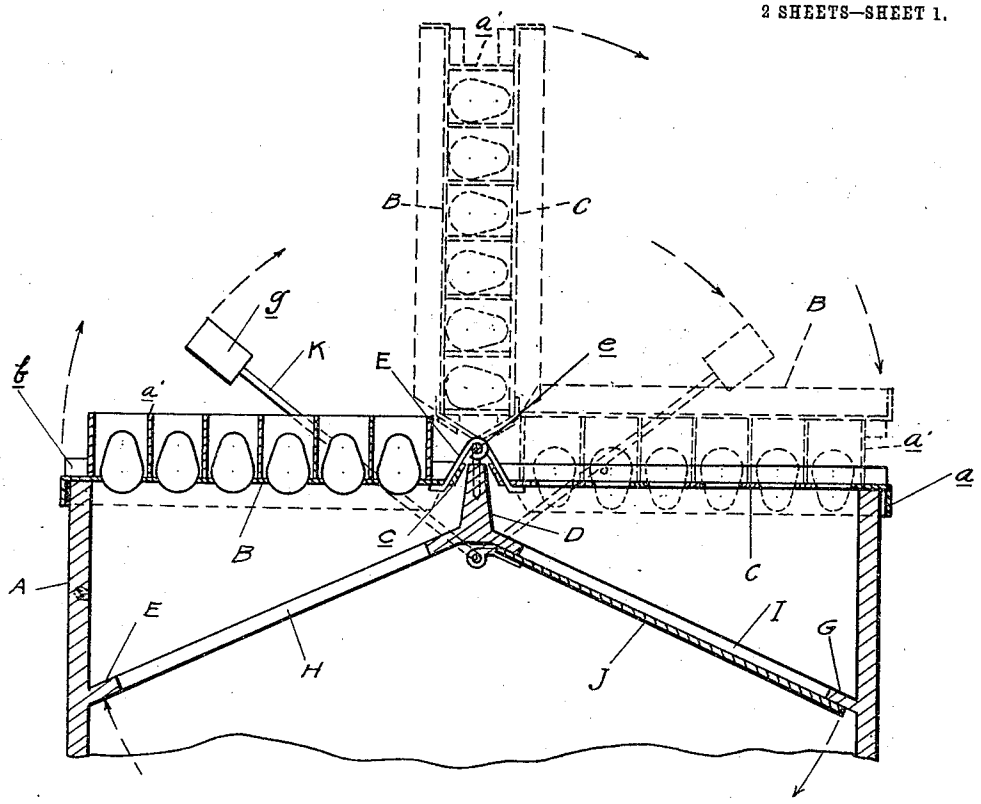


FIG. 1.

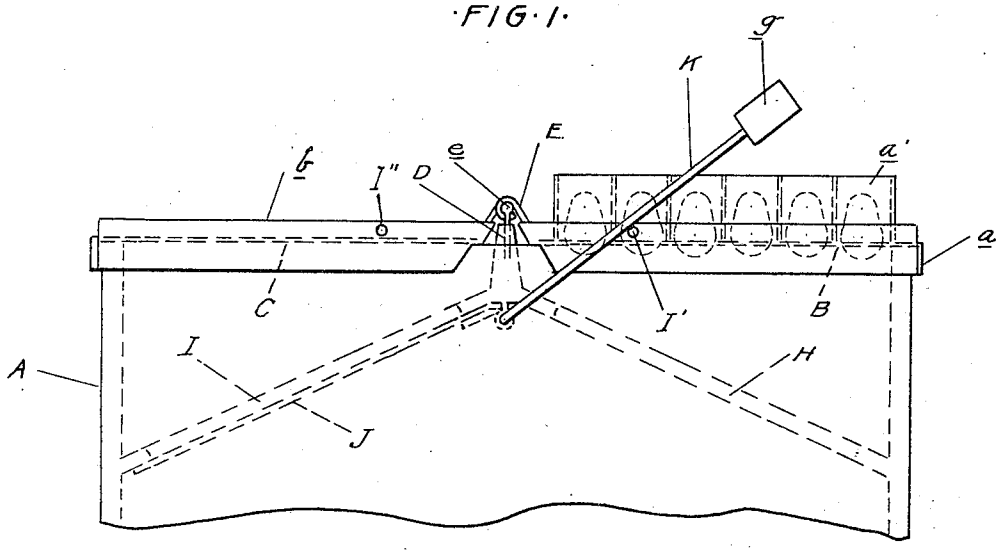


FIG. 2.

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2 SHEETS—SHEET 2.

Fig. 3.

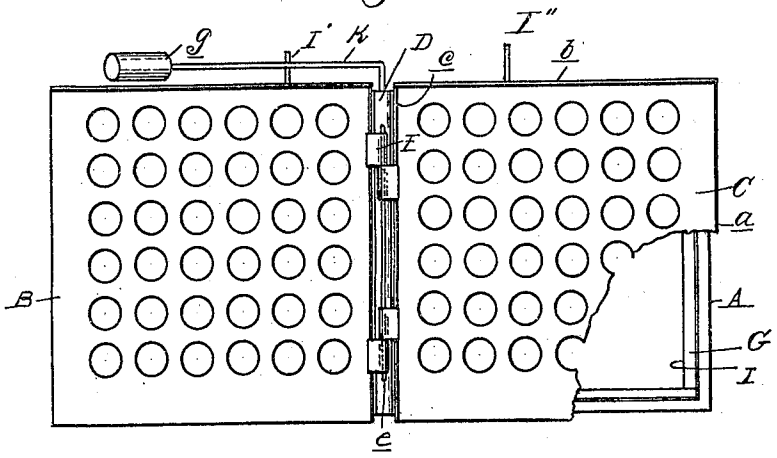


Fig. 4.

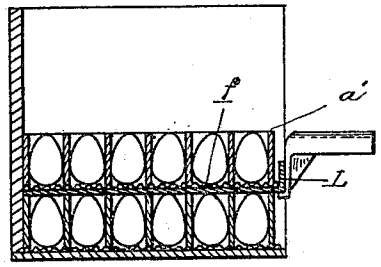
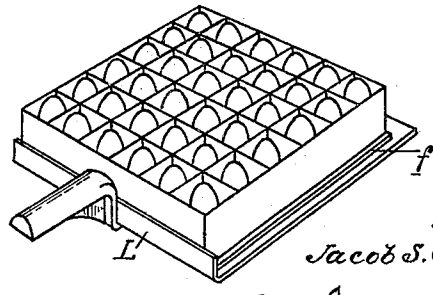


Fig. 5.



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UNITED STATES PATENT OFFICE.

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EGG-TESTER.

No. 808,117. Specification of Letters Patent. Patented Dec. 26, 1905.

Application filed April 18, 1905. Serial No. 256,301.

To all whom it may concern:

Be it known that I, JACOB S. SHOEMAKER, a citizen of the United States, residing at New Lothrop, in the county of Shiawassee and State of Michigan, have invented certain new and useful Improvements in Egg-Testers, of which the following is a specification, reference being had therein to the accompanying drawings.

The invention relates to a testing device designed for candling eggs in large quantities and in a rapid and efficient manner; and it consists in the novel construction of the tester and the peculiar arrangement and combination of its parts, as will be more fully hereinafter set forth.

In the drawings illustrating my invention, Figure 1 is a vertical central section through the candling device. Fig. 2 is a view of the upper portion of the egg-tester in side elevation. Fig. 3 is a plan view. Fig. 4 is a sectional view of an ordinary egg-crate, showing the means of removing the eggs to be tested; and Fig. 5 is a perspective view of a layer of eggs and of the removing-scoop.

In construction the tester is composed of an inclosing section A, in this instance the sides and ends of a receptacle of any suitable construction and preferably of a height ranging from three to three and one-half feet. The top of the section referred to is open, and mounted thereon are two complementary apertured trays B and C, adapted, as will be hereinafter described, to be folded one over the other for the purpose of transferring or reversing the eggs to permit of the inspection of their opposite ends. Each tray or cover member is provided with sufficient apertures to receive a layer of eggs from the usual crate and is further provided with a downwardly-extending flange, as *a*, engaging the walls of the section, with an upstanding flange *b* at one edge thereof, and with a similar flange *c* at its edge adjacent the other tray. Extending across the top of the inclosing section is a transverse partition member D, which projects above the section-top and for a distance below the same. The trays described are pivoted at their meeting edges to the upwardly-extending portion of the partition, the pivot-point being at a distance above the section-top, so that the trays may properly embrace the layer of eggs to be tested. As a preferable means of hinging the trays for folding movement straps, as E, are provided, secured to the meeting edge of each tray, which extend upwardly and are curved to loop over a transversely-extending member *e*, preferably of wire, the ends of which are bent downwardly and driven within the top of the partition, as indicated in Fig. 2.

Within the section A and at a distance beneath the trays are two inclined partitions F and G, apertured, as indicated at H and I. The lower portions of the partition are secured to the walls of the inclosing section, while their upper edges are secured to the transverse member D.

J represents a closure in the form of a plate pivoted to the lower edge of the partition member D in a position to be rocked from one partition to the other for the purpose of alternately closing the apertures. An arm K is rigidly secured to the closure, the arm extending through the wall of the box or receptacle and upwardly in adjacence thereto, as indicated in Fig. 2, in the path of projections or pins, as I′ and I″, upon the flanges *a* of the trays. Preferably the arm is weighted, as indicated at *g*.

The interior of the box or inclosing section is preferably lined with reflecting material—as, for instance, tin—and is illuminated by any suitable means, preferably by a lamp. (Not shown.)

In practice the operator removes from the side of the ordinary egg-crate an entire layer of eggs together with the ordinary cellular section *a′* in which they are arranged, as clearly shown in Fig. 5, by inserting therebeneath and also beneath the strawboard layer *f* a suitable scoop, (indicated by the reference-letter L.) The scoop is laid upon one of the trays and is then withdrawn from beneath the layer of eggs and the cellular section or egg-holder *a′*, together with the strawboard *f*, permitting the eggs to drop within the apertures, the flanges *b* and *c* on each tray guiding the scoop, so that the eggs will properly register with the tray-openings. The closure J is then placed over the aperture or opening adjoining the one over which the eggs are arranged, thus concentrating the light from the lamp or other illuminating device employed within the casing beneath the eggs, which are then inspected by the operator. To inspect the opposite ends of the eggs, the layer is reversed by folding over upon it the complementary tray-section C, as shown in dotted lines in Fig. 1. Both trays are then folded back over the apertured partition F and the tray-section B returned to

its initial position, leaving the eggs in the position indicated to the left in Fig. 1 for inspection. After the candling operation has been completed the layer or sheet of strawboard is placed on top of the eggs in the tray B, the scoop is placed thereabove, and the tray folded again upon its complementary tray to permit the removal of the eggs, which are then replaced within the crate. In the operation of candling the closure before referred to is adapted to cover the opening in the partition opposite the one over which the eggs to be inspected are arranged, for the purpose set forth, and by means of the weighted arm and the pins upon the tray-sections the proper shifting of the closure is effected upon the folding of the trays.

It will be obvious from the description of the invention that by the mechanism employed a large number of eggs, usually three dozen in number, may be rapidly candled in little more than the time required for two or three by hand, which reduces the time of inspecting and candling to a minimum.

What I claim as my invention is—

1. An egg-testing device comprising an inclosing casing open at its top, and a cover therefor consisting of complementary apertured trays mounted for folding movement one above the other, for the purpose set forth.

2. An egg-testing device comprising an inclosing section or wall and a cover therefor comprising two complementary apertured trays pivoted at their adjoining edges to the said wall for folding movement.

3. In an egg-tester, the combination with a receptacle having complementary openings in its top, of pivoted apertured trays arranged over said openings and means for covering either of the openings, for the purpose set forth.

4. In an egg-tester, the combination with a receptacle having complementary openings therein, of pivoted apertured trays arranged over said openings, and a single closure mounted intermediate of and adapted to alternately cover said openings.

5. In an egg-tester, the combination with a receptacle having complementary openings therein, of two pivoted apertured trays arranged over said openings for folding movement, one over the other, and a closure operated upon the folding of said tray for alternately closing the openings.

6. In an egg-tester the combination of a receptacle having an open top, two complementary apertured trays thereon having pivotal connection at their meeting edges with said receptacle at a point above its top, apertured partitions within the receptacle below the trays, and a single closure for covering either of the partition-apertures.

7. In an egg-tester the combination of a receptacle having an open top, two complementary apertured trays thereon having pivotal connection at their meeting edges with said receptacle at a point above its top, apertured partitions within the receptacle below the trays, a single closure for covering either of the partition-apertures, projections upon the edges of the trays, and a weighted arm rigidly secured to the partition-closure extending in adjacence to the tray-sections in the path of their projections.

8. An egg-testing device comprising a stationary casing open at its top and a cover therefor consisting of complementary apertured trays mounted thereon for folding movement, for the purpose set forth.

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

JACOB S. SHOEMAKER.

Witnesses:
EDWARD D. AULT,
AMELIA WILLIAMS.