

(No Model.)

3 Sheets—Sheet 1.

E. H. LAYMAN.
EGG TESTER.

No. 543,493.

Patented July 30, 1895.

Fig. 1.

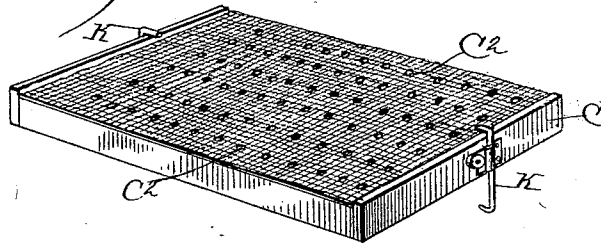
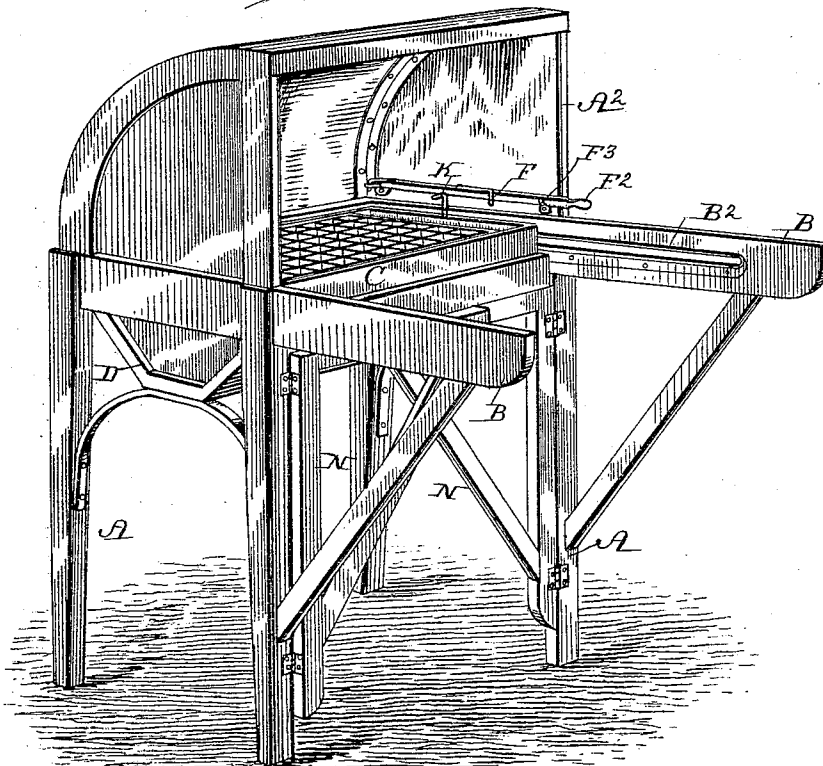


Fig. 2.



Witnesses: Charles F. Wood, R. H. Orwig, } Inventor: Estes H. Layman,
By Thomas G. and J. Ralph Orwig, Attorneys.

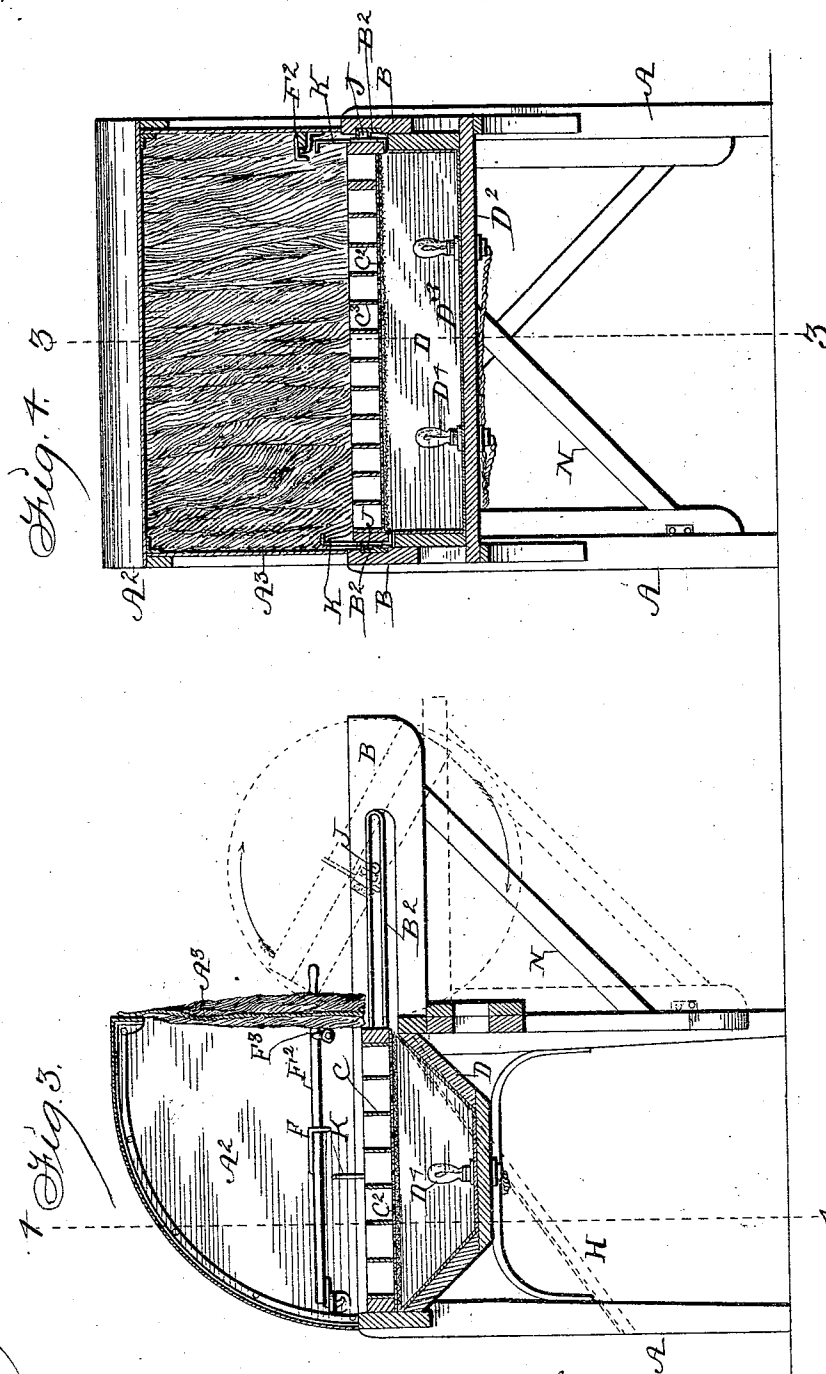
(No Model.)

3 Sheets—Sheet 2.

E. H. LAYMAN.
EGG TESTER.

No. 543,493.

Patented July 30, 1895.



Witnesses: Charles F. Wilcox. } Inventor: Estes H. Layman.
A. C. Orwig. } By Thomas G. and J. Ralph Orwig, Attorneys.

(No Model.)

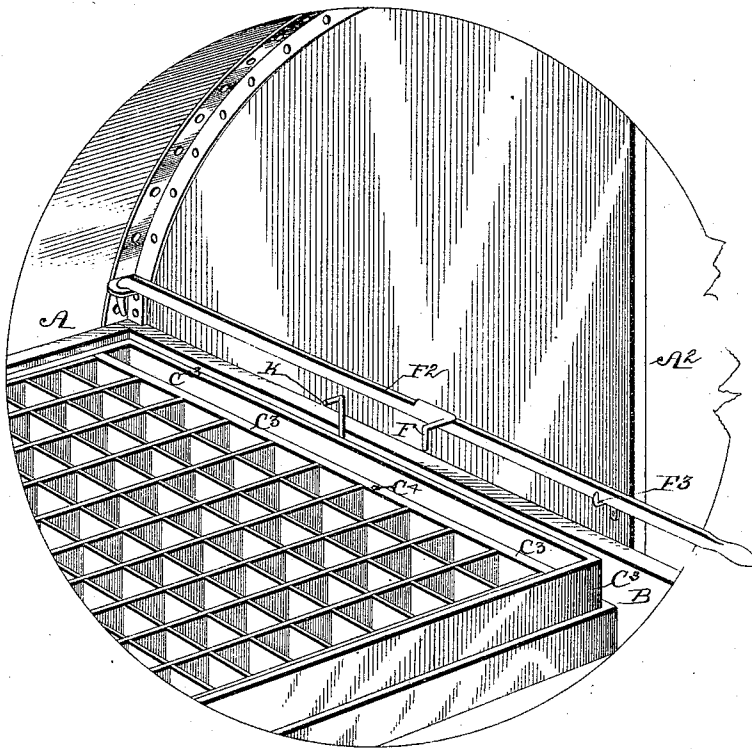
3 Sheets—Sheet 3.

E. H. LAYMAN.
EGG TESTER.

No. 543,493.

Patented July 30, 1895.

Fig. 5.



Witnesses: } Inventor: Estes H. Layman,
W. J. Sankey. }
R. H. Orwig }
By Thomas G. Orwig, Attorney.

UNITED STATES PATENT OFFICE.

ESTES H. LAYMAN, OF DES MOINES, IOWA.

EGG-TESTER.

SPECIFICATION forming part of Letters Patent No. 543,493, dated July 30, 1895.

Application filed August 15, 1894. Serial No. 520,427. (No model.)

To all whom it may concern:

Be it known that I, ESTES H. LAYMAN, a citizen of the United States, residing at Des Moines, in the county of Polk and State of Iowa, have invented a new and useful Egg-Testing Apparatus, of which the following is a specification.

My object is to provide a simple and durable machine in which a drawer full of eggs may be tested at one time, and in which the eggs may be changed without handling.

My invention consists in the construction, arrangement, and combination of the various parts of the device, as hereinafter set forth, pointed out in my claims, and illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of the bottom of the egg-drawer. Fig. 2 shows the complete machine in perspective. Fig. 3 is a vertical transverse sectional view through the line 3 3 of Fig. 4, and Fig. 4 is a vertical longitudinal sectional view through the line 4 4 of Fig. 3. Fig. 5 is a detail perspective view of the corner of the egg-drawer and the means for turning the eggs.

Referring to the accompanying drawings, the reference-letter A is used to indicate the supporting-legs of the device. A² indicates a chamber supported at the top of said legs and closed at all sides except its front, across which a curtain A³ may be placed, if desired, as shown in Fig. 3.

B B indicate cross-pieces fixed to and projecting forwardly from the sides of the chamber A² beyond the front of the machine and provided with a grooved track B² on the inner face of each.

C indicates an egg-drawer composed of a rectangular frame, the bottom of which may be made of wood and provided with perforations C² at regular intervals, and C³ is a frame having a series of compartments therein, each of a size and shape adapted to admit an egg, the aforesaid perforations in the bottom being adapted to coincide with said compartments.

The bottom of the chamber A² has its sides D beveled downwardly toward its central portion and a flat bottom portion D² therein, and D³ indicates a reflector covering said bottom and side portions. D⁴ indicates electric lamps placed in said bottom, the side portions of the

bottom being so arranged as to reflect the light from said lamps upwardly through the perforated bottom of the egg-drawer C. It will now be readily seen that a person looking through the front of the machine will be able to see through each egg placed in the drawer C, by reason of the strong light beneath the drawer shining through the eggs into the dark chamber in the top thereof and directed upwardly by the reflector D³.

I have provided means for turning the eggs so that all sides thereof may be seen when in position in the tester, as follows: The egg-drawer C is made somewhat longer than the egg-case C³, and an opening C⁴ is made in one end of the egg-case C³, adapted to admit a projection F, connected with a lever F², that is pivotally attached to the inner end portion of the frame.

F³ is a hook upon which the outer end or handle of the lever F² may be supported when not in use. By this arrangement the operator may elevate the lever F², place the projection F in the opening in the frame C³ and move the said frame laterally upon the bottom, thereby causing the eggs to turn in the case C⁵.

As indicated by dotted lines in Fig. 3, the device may be adapted to utilize sunlight instead of artificial light by inclining the bottom H downwardly from the forward portion of the machine-frame and having the rear thereof open to admit the sunlight upon said bottom, which is also provided with a reflector, so that the light will be reflected upwardly through the egg-drawer.

To provide for placing a drawer full of eggs into the tester without handling the same, I have arranged a journal J, fixed to the ends and central portion of the frame C, to travel in the track B², so that the said frame may easily be drawn outwardly from the machine and readily turned on said journals.

K indicates a clamping device pivotally connected with the end portions of the egg-drawer C, and having its ends bent at right angles to overlap the top of the egg-drawer C and engage a like egg-drawer to firmly clamp the two together.

To empty the eggs from the drawer C into an ordinary egg-drawer, I place an empty egg-drawer on top of the drawer C, then clamp the two drawers firmly together by means of

the clamping device K, then turn the drawers upon the journal J, when the eggs will drop into the egg-drawer.

N N indicate brackets hinged to the legs of the machine-frame, adapted to swing outwardly, and of a height adapted to support the egg-drawer into which the eggs have been deposited from the testing-drawer. This drawer full of eggs may then be removed and a new drawer full of eggs inserted in place of the one removed, clamped to the egg-testing case, and then inverted to deposit all of the eggs in the egg-testing case.

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

1. An improved egg testing apparatus comprising a suitable chamber, means for admitting light to its interior from its bottom, a cover for the chamber having openings therein, two tracks in the sides of the chamber, an egg drawer having compartments therein to receive eggs, projections at the sides of the drawer to engage said tracks to enable the drawer to be moved outwardly and then turned over, clamps at the sides of the said drawer to engage a mating egg-case so that the eggs may be transferred from one to the other, substantially as and for the purposes stated.

2. An improved egg tester comprising a suitable chamber, a bottom portion therein having a reflector on its top surface, means for admitting light above said reflector, to be directed upwardly therefrom, a suitable drawer having a perforated bottom, a case adapted to be placed on said bottom, and provided with a plurality of compartments, each of a size and shape adapted to admit an egg, means for moving the said case contain-

ing the eggs longitudinally upon the said perforated bottom, two supports projecting forwardly from the sides of the machine frame, a track fixed to each, a journal fixed to each end of the aforesaid drawer adapted to slide in said tracks and permit the drawer to be turned, and means for clamping a mating drawer thereto, for the purposes stated.

3. An improved egg testing apparatus comprising a suitable chamber, a bottom therein having its sides inclined downwardly and inwardly, reflectors on the top surfaces of said bottom, suitable lamps placed upon said bottom, an egg drawer composed of a rectangular frame, the bottom in said frame having a plurality of perforations as set forth, a case for containing eggs mounted on the top of the said drawer and capable of moving longitudinally thereon, a lever pivotally mounted to the inside of one end of the machine frame, a journal projecting downwardly from its approximately central portion, adapted to engage the one end of said sliding case, two supports projecting forwardly from the sides of the machine frame, a track having a groove therein fixed to the inner surface of each of said supports, a journal fixed to the central portion of each end of the aforesaid drawer, and a clamping device pivoted to the ends of the drawer, adapted to clamp a mating drawer thereto, and brackets hinged to the machine frame to be swung forwardly to support the egg drawer in a horizontal position when drawn from the machine frame, all arranged and combined to operate substantially in the manner set forth, and for the purposes stated.

ESTES H. LAYMAN.

Witnesses:

J. H. SMITH,
THOMAS G. ORWIG.