March 31, 1925.

1,531,303

E. MILLER

EGG TESTING DEVICE

Filed Oct. 31, 1924

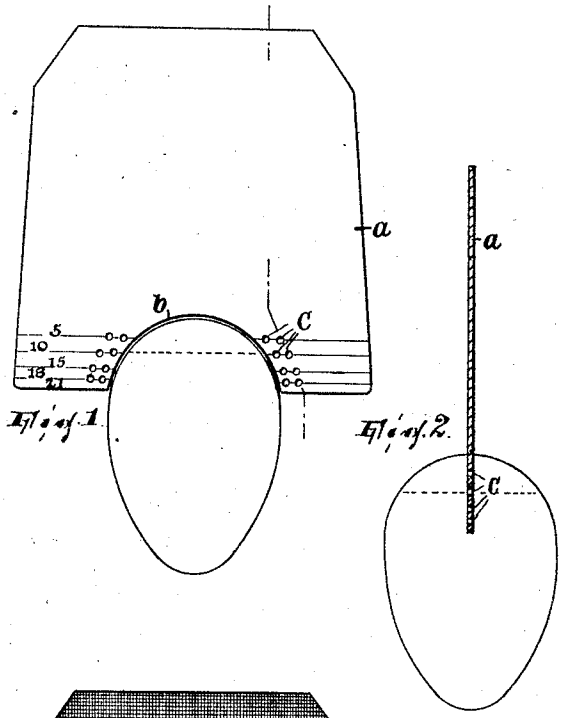


Fig. 1.

Fig. 2.

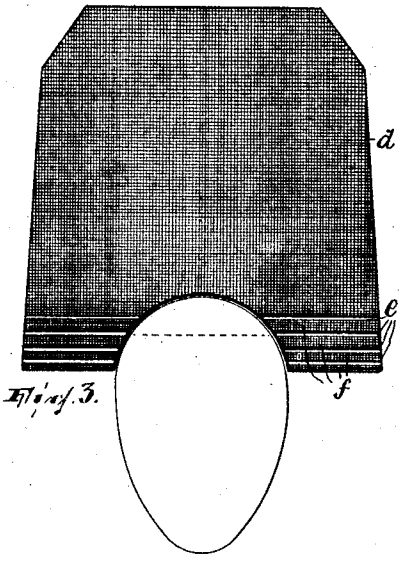


Fig. 3.

WITNESS

Wm. Bell.

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Emil Miller,

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UNITED STATES PATENT OFFICE.

EMIL MILLER, OF NORTH HALEDON, NEW JERSEY.

EGG-TESTING DEVICE.

Application filed October 31, 1924. Serial No. 746,979.

To all whom it may concern:

Be it known that I, EMIL MILLER, a citizen of the United States, residing at North Haledon, in the county of Passaic and State of New Jersey, have invented certain new and useful Improvements in Egg-Testing Devices, of which the following is a specification.

In testing eggs during incubation there is at present no satisfactory means for determining with accuracy from time to time the progress of the incubation. The work is done by holding each egg to the light with the butt-end up so that the observer can determine the position on each reading of the level of the liquid contents of the egg, and it is not attended with any approach to the accuracy necessary to avoid considerable waste unless it is performed at the hands of skillful persons of long experience.

My invention takes into consideration that as time progresses the air cell of an egg increases unless the drying of the contents is retarded by addition of moisture, as in artificial incubation, and that under proper conditions of light the change in the level of the liquid contents of the egg may be observed by holding it butt-end up before a light; and its object is therefore to provide means whereby the level of the liquid contents of an egg may at any time be calculated to a nicety, whether during the process of artificial incubation or for the purpose of determining the age of the egg, as in candling.

To this end I have in the best form of my invention provided a card with a recess to receive the butt of the egg and adapted to be placed with the egg, having its butt-end up and in the recess, between the observer and a suitable source of light, the card being opaque except for gaging portions arranged at intervals along the margin of the recess. As indicated, this is a statement of the best form of my invention; but broadly, the invention consists in a gaging body having an egg receiving recess and gaging portions arranged at intervals along the margin of the recess and through which the passage of light is obstructed in different degree from what it is by the portions of the body intervening between the gaging portions, for while it is best to have the gaging portions less resistant to light than the remainder of the body so as to protect the eyes of the observer from the light, this is not indispensable. Further, it being new so far as I am aware to provide a card or other sheet-like body with a recess to receive the egg and gaging portions arranged at intervals along the margin of the recess, I broadly claim such a body for use in testing eggs.

The accompanying drawing shows my invention,

In Fig. 1 in elevation, an egg being shown in position in the recess of the testing device or body;

In Fig. 2 in vertical section; and

In Fig. 3 in elevation, this view showing a modification of the invention.

In the drawing, Figs. 1 and 2, *a* is a card formed with a recess *b* which is here located in one side or edge of the card. On lines (which may in fact actually appear on the card, as shown) which traverse the recess are formed perforations *c*; usually there will be one or more of these perforations to a line on each side of the recess. The lines are spaced apart suitable distances, as shown, and for convenience there may be provided in connection with them indices, such as 5, 10, 15, 18 and 21. The egg is placed with its butt end in the recess and then the card and egg are held between the observer and a suitable source of light. The card in this case is opaque or at least more resistent to the passage of light therethrough than the perforations *c* forming its gaging positions. Thus the said gaging portions stand out, and by noting with which one of them the liquid-level in the egg corresponds the observer can determine quickly and accurately the progress of the incubation and govern the continuance thereof accordingly. The line 5 indicates 5 days of incubation; 10, 10 days, etc.

The card may be made imperforate, as shown in Fig. 3, where *d* is a card of celluloid, for example, the gaging portions *e* being here attenuated narrow parallel strips between which and the remainder of the card (and particularly the portions *f* lying between the stripes) the desired contrast is produced by forming, say, the former transparent and the latter colored (as black) so as to be more or less opaque.

Having thus fully described my invention what I claim is new and desire to secure by Letters Patent is:

1. A device for use in testing eggs consisting of a gaging body having an egg-re-

ceiving recess and adapted to be placed with the egg, having its butt-end up and in the recess, between the observer and a suitable source of light, said body having gaging portions arranged at intervals along the margin of the recess and through which the passage of light is obstructed in different degree from what it is by the portions of the body intervening between the gaging portions.

2. A device for use in testing eggs consisting of a gaging body having an egg-receiving recess and adapted to be placed with the egg, having its butt-end up and in the recess, between the observer and a suitable source of light, said body having gaging portions arranged at intervals along the margin of the recess and through which the passage of light is obstructed in less degree from what it is by the portions of the body intervening between the gaging portions.

3. A device for use in testing eggs consisting of a sheet-like body having an egg-receiving recess and adapted to be placed with the egg, having its butt-end up and in the recess, between the observer and a suitable source of light, said body having gaging portions arranged at intervals along the margin of the recess.

In testimony whereof I affix my signature.

EMIL MILLER.