

J. W. BILLINGS.

EGG TESTER.

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939,205.

Patented Nov. 9, 1909.

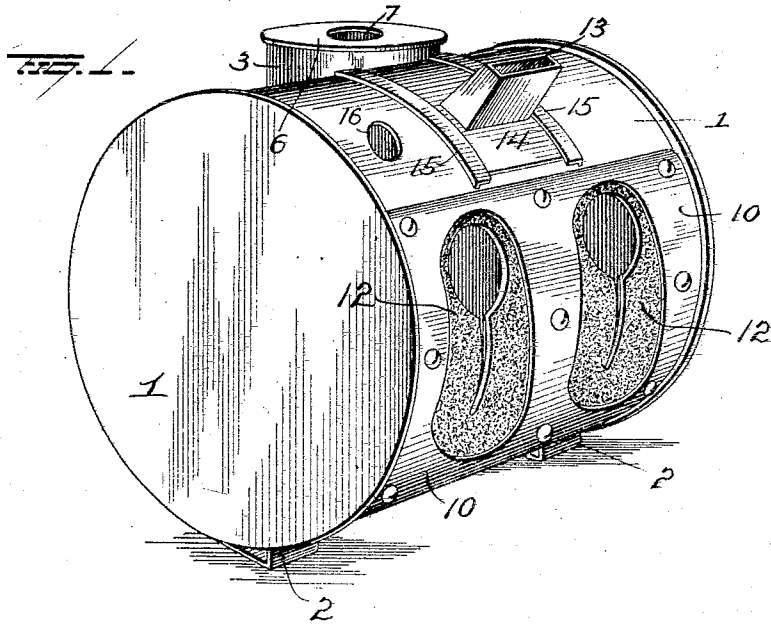


Fig. 2.

Fig. 3.

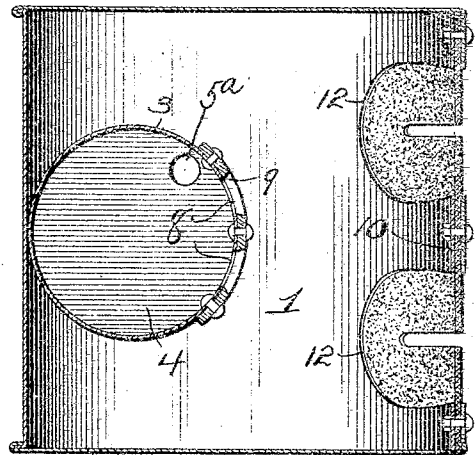
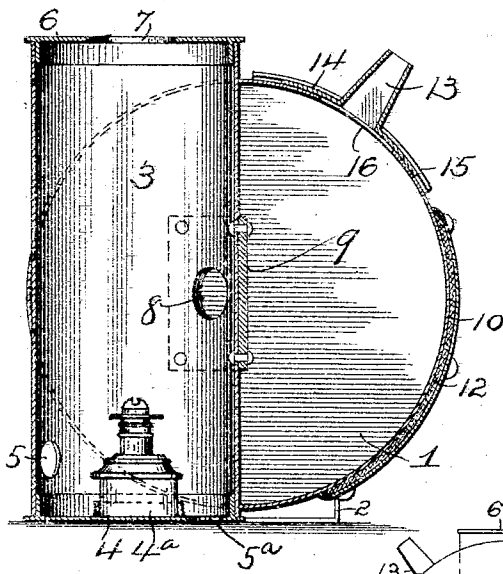
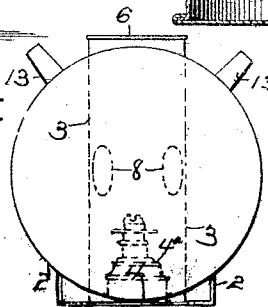


Fig. 4.



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EGG-TESTER.

939,205.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, JOHN W. BILLINGS, of Beatrice, in the county of Gage and State of Nebraska, have invented certain new and useful Improvements in Egg-Testers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in devices for testing or candling eggs,—the object of the invention being to provide a device for the purpose stated which shall be simple in construction; cheap to manufacture; easy to operate; and by means of which eggs can be accurately tested or examined without the use of a dark room.

With this object in view the invention consists in certain novel features of construction and combinations of parts as hereinafter set forth and pointed out in the claims.

In the accompanying drawings, Figure 1 is a view of an egg tester embodying my improvements. Fig. 2 is a vertical transverse sectional view, Fig. 3 is a horizontal sectional view, and Fig. 4 is a view of a slight modification.

1 represents the body portion of the device which may consist of a cylindrical drum, preferably of sheet metal, and provided with feet 2 which assist in supporting the drum forming a self-contained dark chamber in a horizontal position.

A vertical cylindrical casing or shell 3, preferably of sheet metal, passes downwardly through the rear portion of the drum 1 and projects slightly above the plane of the top of the latter and also preferably slightly below the bottom of said drum or dark chamber. The lower end of the shell 3 is closed by means of a removable floor 4 which coöperates with the feet 2 in supporting the drum in a horizontal position. The removable floor 4 may be utilized to support a lamp of any preferred construction,—such for instance as a lamp 4^a employing a Bunsen burner or if desired an incandescent lamp may be used. In order to supply sufficient air to support combustion in case an oil lamp is employed, the lower portion of the cylindrical shell 4 may be provided with holes 5 and the floor 4 may also be provided with one or more holes 5^a. The upper end of the cylindrical shell 3 is closed by means of a

removable cap 6 and when an oil lamp is employed, this cap will be provided with a central opening 7 for the escape of products of combustion.

The cylindrical shell 3 is provided in its front wall between the top and bottom of the drum 1, with holes 8 and to the front face of the cylindrical shell 3, a cushion, 9, preferably of leather, is secured and provided with openings which aline with holes 8 in the front wall of the cylindrical shell.

The front wall of the drum or dark chamber 1 is made with enlarged openings and over these openings, a plate 10 is secured. This plate 10 is provided with elongated openings for the reception of the hands of an operator and in order to exclude light through these hand openings, the latter are lined with flexible material 12, such as felt, and this flexible material is held in place by means of the plate 10.

It will be observed that the hand openings in the drum or dark chamber are in front of the openings in the front wall of the vertical shell 3 so that the operator can place two eggs in front of the openings in the vertical shell with the eggs bearing against the leather cushion surrounding said openings. In order that the operator may now view the eggs with the light in the cylindrical shell behind them, an adjustable sight device 13 is provided. This device is preferably elongated in form and provided with a base plate 14, the side edges of which are movable in guideways 15 secured to the drum or dark chamber 1. The sight device is thus located over an opening 16 in the drum or dark chamber above the hand holds and can be adjusted partially over the convex exterior of the drum so as to enable the operator to place said sight device in such position as will best enable him to closely examine the eggs which he holds in front of the light openings in the vertical shell 3.

It may sometimes happen that a customer or other person would wish to observe the testing of the eggs by the operator, and to permit such view of the testing operation, a peek hole 16 may be provided in the drum at one side of the adjustable sight device 13, as shown in Fig. 1.

In order to enable two operators to use the device simultaneously, the double construction shown in Fig. 4 may be employed. With this arrangement, the shell or cylinder

3 passes centrally through the drum or dark chamber, and the latter is provided at respective sides of said shell or cylinder with sight devices 13.

5 The shell or cylinder will of course be provided with openings 8 diametrically opposite each other as shown in Fig. 4, instead of at one side of said shell or cylinder as shown in Figs. 2 and 3.

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

1. In an egg tester, the combination with a casing having arm holes and a vertical shell adapted to contain a light device and provided with an opening communicating with the interior of said casing, of a sight device adjustably mounted on said casing.

2. In an egg tester, the combination with a casing having a curved wall forming a self contained dark chamber provided with arm holes, and a vertical shell adapted to contain a light-device and having openings communicating with said casing, of a sight device adjustably mounted on the curved exterior of the casing above the arm holes.

3. In an egg tester, the combination with a cylindrical drum or casing forming a self contained dark chamber having arm holes in its peripheral wall and a shell passing through said drum or casing and disposed at right angles to the axis of the latter, said shell having light openings communicating

with the interior of the casing, of a sight device adjustably mounted on the peripheral face of the shell or casing above the arm holes, said shell or casing having an opening under said sight device, and light shields surrounding the arm openings of the drum or casing.

4. In an egg tester, the combination with a casing or dark chamber having arm holes and a vertical shell adapted to contain a light device and provided with an opening communicating with the interior of said casing, of a sight device movable on said casing, the latter being also provided at one side of said sight device with an auxiliary sight opening or peek hole.

5. In an egg tester, the combination with a drum or dark chamber having a curved wall and provided with arm holes, said drum also having an opening therein, a vertical shell or cylinder passing through said drum and having openings communicating with the interior of the latter, and a sight device movably mounted upon said drum and communicating with said opening in the latter.

In testimony whereof, I have signed this specification in the presence of two subscribing witnesses.

JOHN W. BILLINGS.

Witnesses:

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