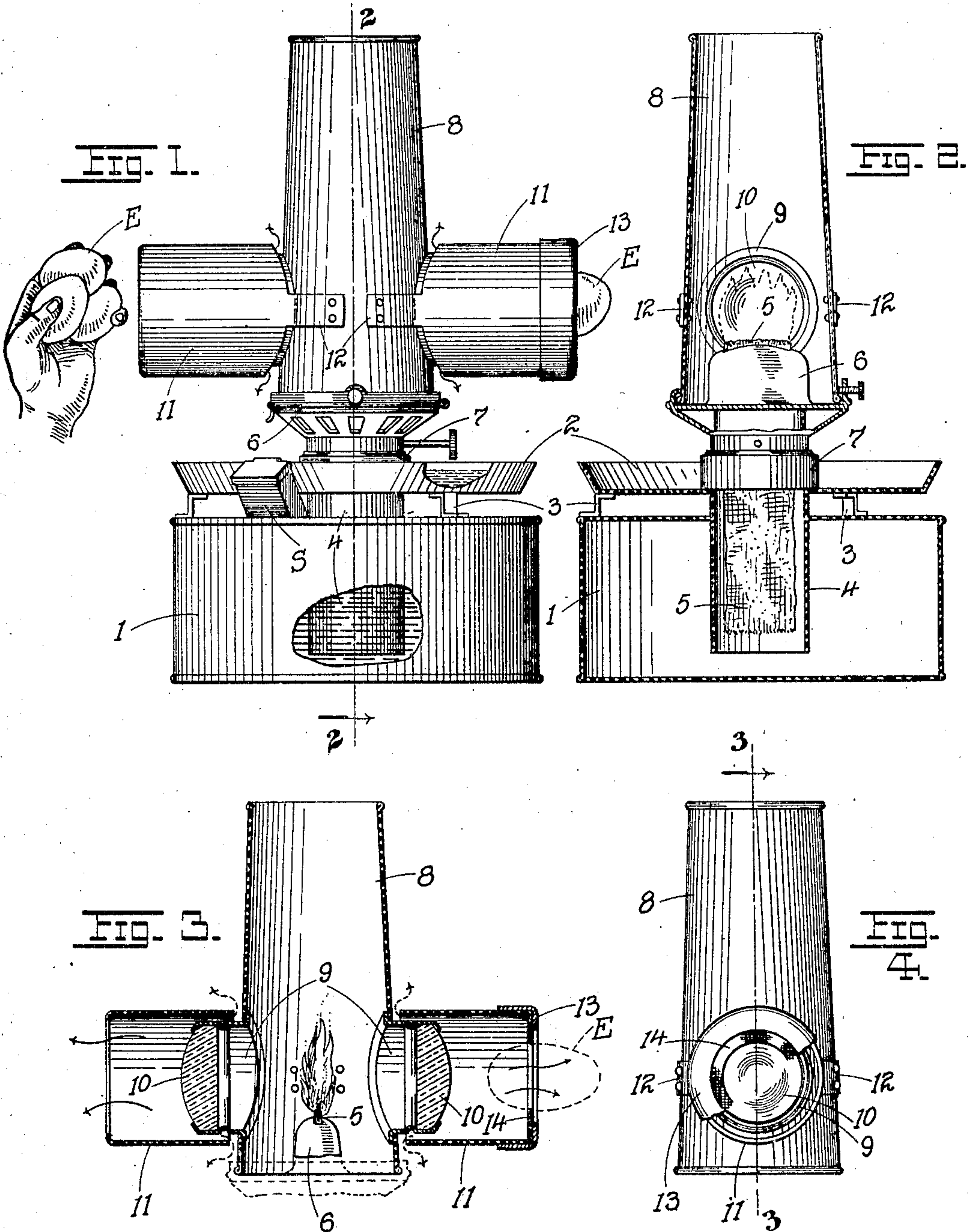


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C. LINGEMANN.
EGG TESTER.

APPLICATION FILED NOV. 14, 1906.



WITNESSES:

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CHRISTIAN LINGEMANN, OF ST. LOUIS, MISSOURI.

EGG-TESTER.

No. 849,405.

Specification of Letters Patent.

Patented April 9, 1907.

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To all whom it may concern:

Be it known that I, CHRISTIAN LINGEMANN, a citizen of the United States, residing at St. Louis, State of Missouri, have invented certain new and useful Improvements in Egg-Testers, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention has relation to improvements in egg-testers; and it consists in the novel construction and arrangement of parts more fully set forth in the specification and pointed out in the claims.

In the drawings, Figure 1 is an elevation of my invention. Fig. 2 is a vertical transverse section on the line 2 2 of Fig. 1. Fig. 3 is a section of the upper portion thereof on the line 3 3 of Fig. 4, being at right angles to the section shown in Fig. 2; and Fig. 4 is an end view of the upper part of Fig. 1.

The object of my invention is to produce an egg-testing lamp which will be available not only for testing eggs preparatory for use in an incubator, but a lamp which will serve the purpose of candling eggs preparatory to delivery to the consumer. The lamp is, moreover, adapted as a convenient and effective heater for incubators and brooders, and though its application for the latter purposes is not herein illustrated its adaptability in that respect is obvious from a mere inspection of the drawings. The advantages of the invention will be best apparent from a detailed description thereof, which is as follows:

Referring to the drawings, 1 represents a holder or receptacle for any suitable hydrocarbon or oil, above which is mounted a basin 2, resting on legs 3, which serve to space the basin from the receptacle, and thus permit a free circulation of air between these parts. This arrangement not only permits the generation of the necessary moisture to be conducted to the chamber of the incubator or brooder where the lamp is employed for purposes of supplying the necessary heat to effect the hatching, but the water in the basin and air circulating in the space below it serves to prevent the overheating of the walls of the oil-receptacle 1 when the lamp is used either as a heater or egg-tester. Formed with or secured to the basin 2 is a central depending tube 4, into which passes the wick 5, carried by the burner 6, the latter being screwed into the annular socket or ring 7,

forming the upper extension of the tube 4. The "burner" 6 has reference, of course, to the entire brass fitting (well known in the art) through which the wick passes and which, in addition, serves to support the flue 8 of the lamp. The depending tube 4 prevents splashing of the oil when the lamp is moved or in being filled through the spout S while burning.

In the case of a double tester I provide the flue 8 with two diametrically opposite annular open-ended rings or holders 9 9 for the support of the "bull's-eyes" or lenses 10 10, each lens being encompassed by an outer testing tube or cylinder 11, spaced a suitable distance from the outer walls of the rings 9, Fig. 3, the tubes being secured to the flue 8 by means of tongues or extensions 12 riveted to the flue. One of the testing-tubes 11 is provided with an outer detachable collar 13, designed to hold in place a ring of cloth or other fabric 14 for receiving an egg E in testing the latter for the incubator. For a single tester of course the flue 8 is equipped with only a single testing-tube, and that is the tube provided with the cloth ring. In a double tester the tube without the cloth may be used in candling eggs, as many as three eggs, Fig. 1, being held in the hand, the light from the bull's-eye penetrating the same, so that they can be rapidly candled. In testing a single egg for incubator purposes the same is inserted into the cloth ring 14, Fig. 1, the light from the bull's-eye showing at a glance whether the egg is sterile or fertile and showing the condition of the egg at various stages of development. In testing an egg inserted into the cloth ring 14, as shown in Fig. 1, the heat radiated from the bull's-eye would have no suitable avenue of escape, so the provision of spacing the tube 11 from the ring or holder 9 and from the flue is resorted to to allow for such escape, (see dotted arrows, Fig. 3,) that the egg may not be affected during the testing operation by excessive heat. Of course upon removing the egg the heat-rays find ready egress through the open end of the tube, as shown by full arrows in Fig. 3.

The source of light need not necessarily be a flame; but an electric light may be substituted, as is obvious, where the device is to be used as a mere tester.

Having described my invention, I claim—

1. An egg-tester comprising a flue, a source of light located within the flue, a lens mount-

ed in position opposite the light, and a testing-tube enveloping the lens, an open space being left between the tube, and the lens and between the tube and flue.

5 2. An egg-tester comprising a flue, a source of light located within the flue, a ring or lens-holder secured to the flue opposite the source of light, a testing-tube enveloping the ring and lens carried thereby, an open space being
10 left between the ring and tube, and between the flue and tube, and a ring of yielding material or fabric secured to the outer end of the tube for receiving an egg.

15 3. An egg-tester comprising a flue, a source of light located within the flue, a ring or lens-

holder secured to the flue opposite the source of light, a testing-tube enveloping the ring and lens carried thereby, an open space being left between the ring and tube, and between the flue and one end of the tube, means for
20 securing the tube to the flue, a ring of yielding material at the outer end of the tube for receiving the egg to be tested, and a collar for securing said material in position.

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

CHRISTIAN LINGEMANN.

Witnesses:

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