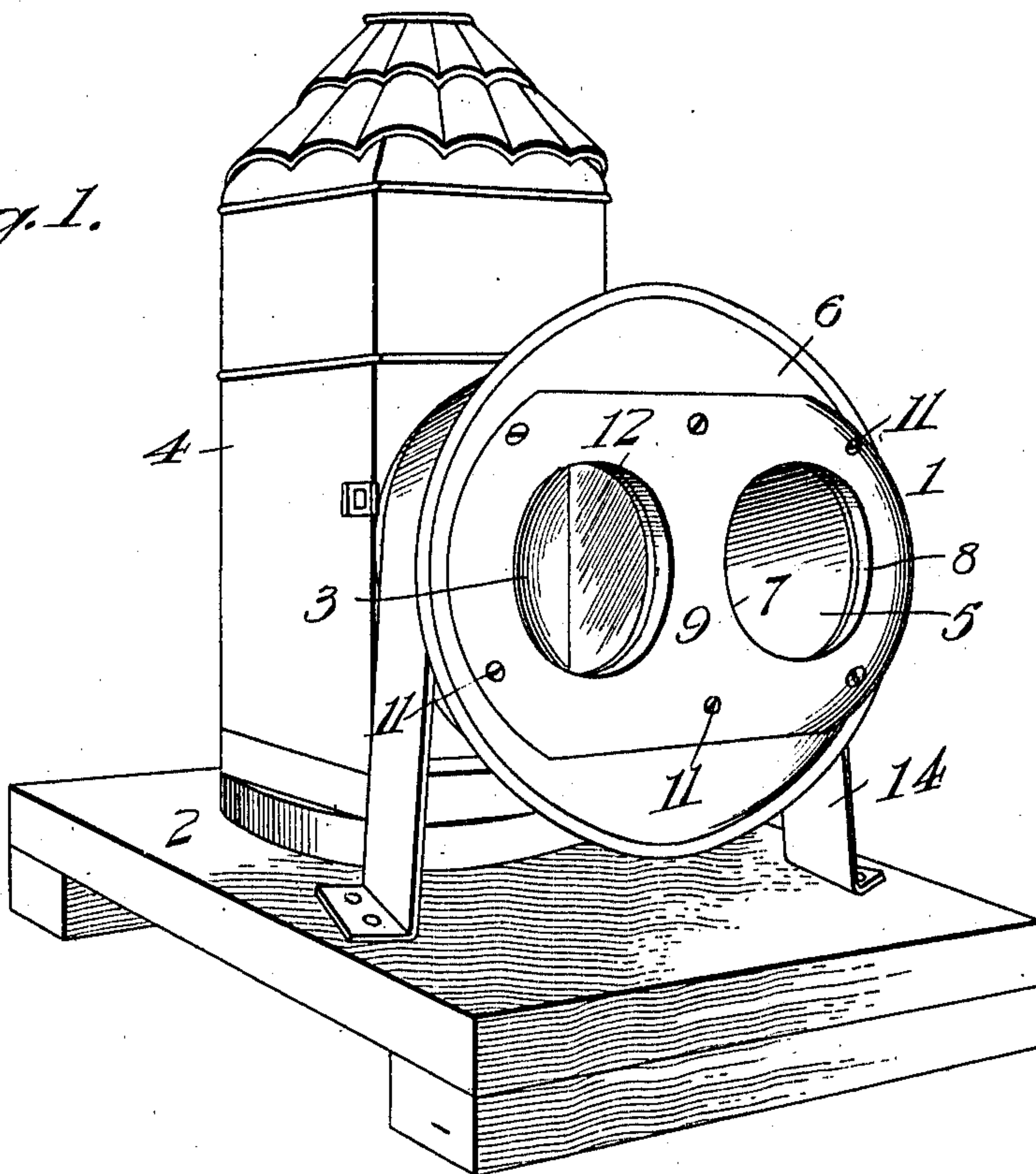


W. C. DE LAPP.  
EGG TESTER.  
APPLICATION FILED OCT. 20, 1910.

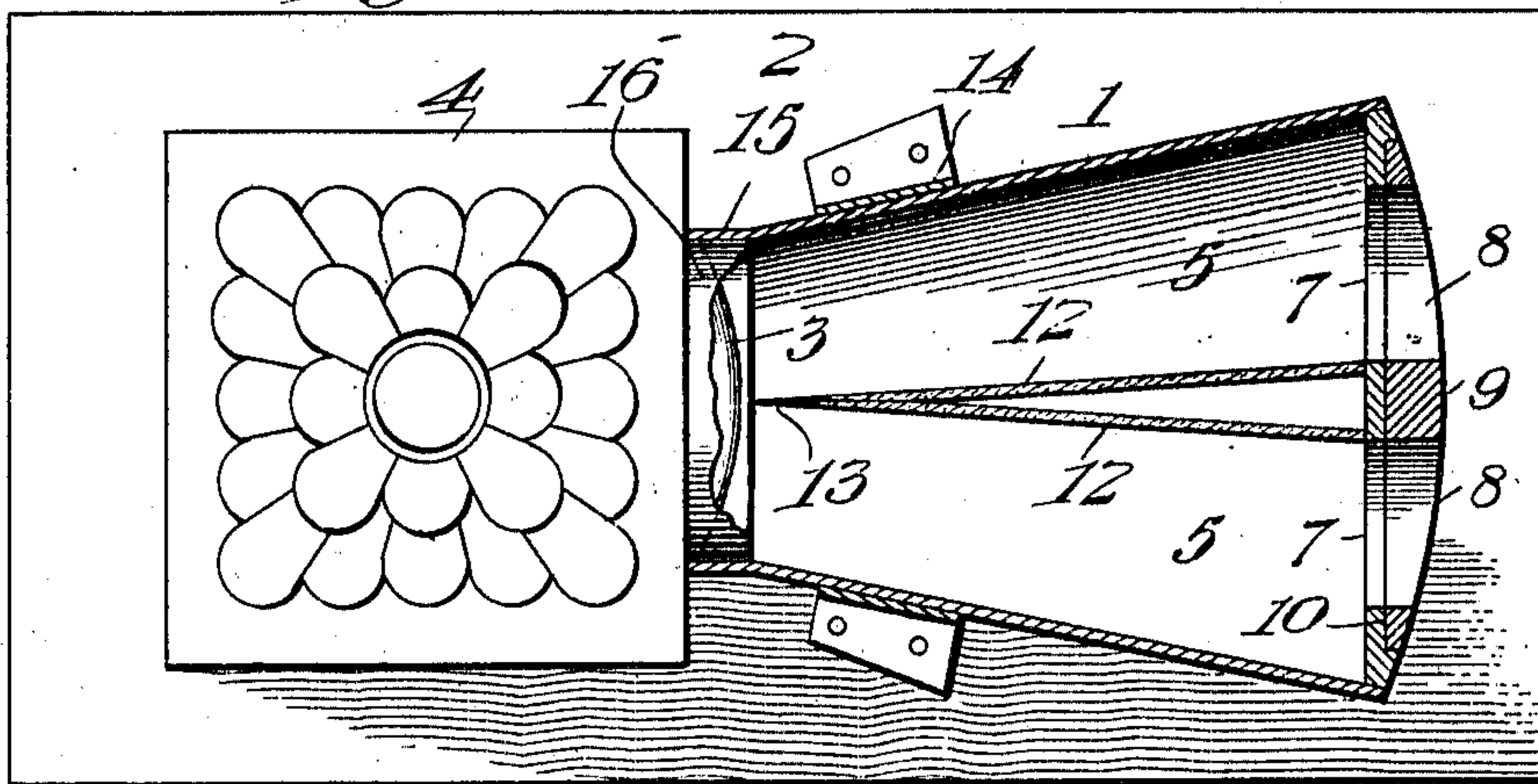
988,317.

Patented Apr. 4, 1911.

*Fig. 1.*



*Fig. 2.*



WITNESSES

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# UNITED STATES PATENT OFFICE.

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## EGG-TESTER.

988,317.

Specification of Letters Patent.

Patented Apr. 4, 1911.

Application filed October 20, 1910. Serial No. 588,197.

*To all whom it may concern:*

Be it known that I, WILLIAM C. DE LAPP, a citizen of the United States, residing at Atchison, in the county of Atchison and State of Kansas, have invented certain new and useful Improvements in Egg-Testers, of which the following is a specification.

This invention relates to the subject of egg testing appliances, and has in view a simple, compact, and thoroughly practical device of this character comprising means for accurately testing the soundness or purity of an egg.

To this end the invention contemplates a testing device capable of use in connection with any suitable source of light such as may be provided for by an oil lamp or electric light, and comprising means whereby the rays of light may be focused and concentrated to the best possible advantage upon the egg so that the operator can readily test the purity of the egg with certainty and despatch.

A further object in this connection is to provide an egg tester having means for inspecting a pair of eggs at practically one operation and at a single glance from both eyes of the operator, thus insuring a rapid handling of the eggs, during testing, while at the same time not interfering with the reliability and certainty of the test.

With these and many other objects in view, which will more readily appear as the nature of the invention is better understood, the same consists in the novel construction, combination, and arrangement of parts hereinafter more fully described, illustrated, and claimed.

While the invention is necessarily susceptible to structural modification, a preferred and practical embodiment thereof is shown in the accompanying drawings, in which:

Figure 1 is a perspective view of an egg testing appliance constructed in accordance with the present invention, and showing the improved focusing hood employed in connection with the light supplied from an ordinary oil lantern. Fig. 2 is a horizontal longitudinal sectional view of the improved focusing hood illustrating the lantern in plan.

Like references designate corresponding parts in the several figures of the drawings.

The improved testing appliance forming the subject matter of this application essen-

tially comprises what may be termed a focusing hood designated in its entirety by the reference numeral 1, and adapted to be associated with a suitable base or support 2, and with a source of light, such for instance as that supplied through the lens 3 of an ordinary oil lantern 4 which may also be arranged upon the base or support 2.

According to the present invention, the specially designed focusing hood 1 consists of a hollow frusto-conical body inclosing therein a pair of separate divergently arranged test tubes 5—5, which tubes extend the full length of the hood body, and are open at both ends. The said test tubes 5 converge toward the lens 3 of the source of light, and diverge toward the outer and larger end of the hood, and said latter end of the hood is inclosed by a circular cover piece 6 suitably fitted to the hood body and provided therein with circular light-openings 7, one for each tube 5, and in registration with the egg holes 8 provided in an egg holder 9 which preferably consists of a separate plate recessed in the cover piece 6 as at 10, and removably held in place by the screws or equivalent fastenings 11. The said holder 9 provides a substantial support for properly centering and holding the eggs when examining the same in the rays of light which are emitted through the lens 3 and the test tubes 5.

A distinctive and practical feature of this invention resides in providing the test tubes 5 along what may be termed their inner sides with reflecting mirrors 12, which mirrors present mirror faces along inner sides of the tubes. These mirrors 12 are arranged convergently toward the lens 3 and the apex 13 of the angle formed by said mirrors 12 is located directly in front of the center of the lens 3, thus insuring an even and strong focusing of the light in both of the tubes 5 and against and through the eggs being tested.

The focusing hood 1 may be supported in a stationary position upon the base 2 by any suitable means. One way of accomplishing this is suggested in the drawings and consists in the employment of supporting standards 14 mounted upon the base 2 and having a supporting engagement with the hood body at opposite sides thereof as plainly shown in both figures of the drawings. Also, to insure a close fitting relation between the hood body and the lens 3 of a source of



light, said hood body is preferably provided at its inner smaller end with a lens receiving neck 15, into which removably projects the collar or equivalent member 16 of the lantern 4 which carries the lens 3.

In carrying out the invention it is also proposed to specially grind the lens 3 to focus the light uniformly and strongly through the tubes 5 and against the mirrors 12 thereof.

As already stated, an oil fed light or an electric light may be used behind the lens 3 or its equivalent without departing from the invention.

I claim:

1. An egg tester comprising a focusing hood having a pair of inclosed divergently arranged test tubes open at both ends, and each having mirror faces at one side.

2. An egg tester comprising a focusing hood having a pair of inclosed divergently arranged test tubes open at both ends, and reflecting mirrors forming the inner sides or walls of the tubes, said reflecting mirrors being convergently arranged toward the source of light.

3. In an egg tester, the combination with

a lens and a source of light, of a focusing hood consisting of a frusto-conical body, having the smaller end thereof arranged over the lens, and provided at its larger end with a pair of egg holders, said hood being further provided with a pair of inclosed divergently arranged test tubes opening through both ends of the hood body and each provided at its inner side with a mirror.

4. In an egg tester, the combination with a source of light, of a focusing hood consisting of a frusto-conical body provided at its outer and larger end with a cover having an egg holder provided with egg holes therein, said body being further provided with a pair of inclosed diagonally arranged test tubes open through both ends of the body, and each provided at its inner side with a longitudinally extending reflecting mirror, the mirrors of the two tubes converging toward the smaller end of the hood body.

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

WILLIAM C. DE LAPP.

Witnesses:

Z. E. JACKSON,

RUTH S. AINSWORTH.