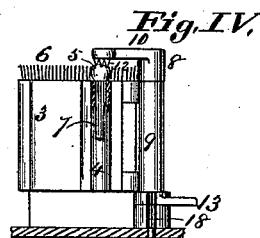
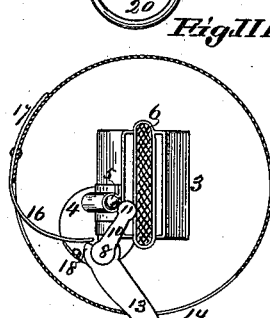
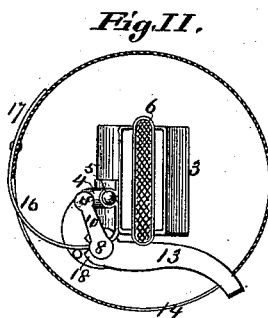
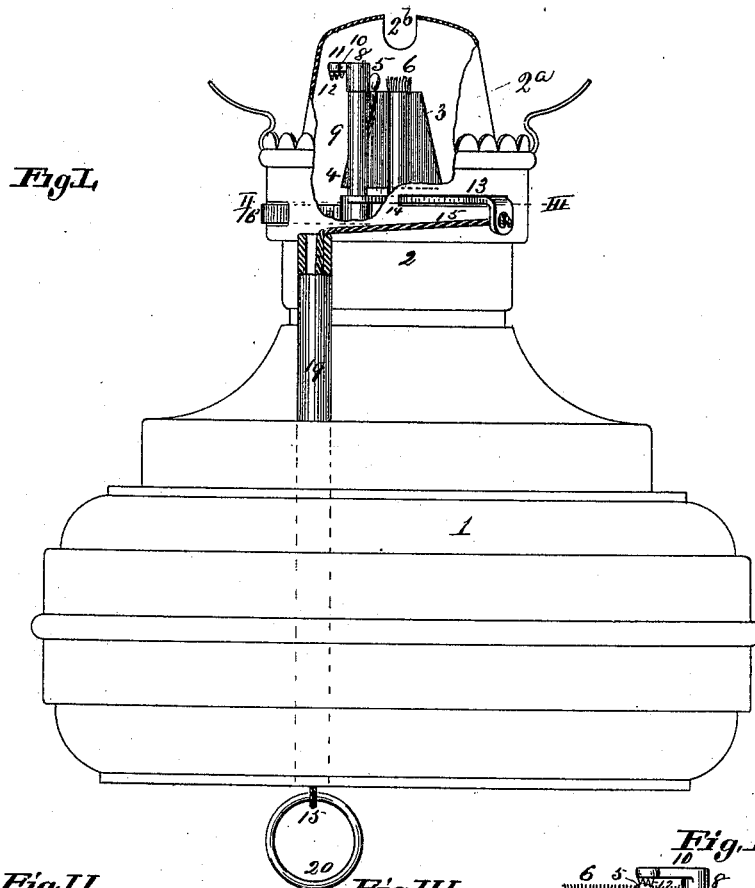


(No Model.)

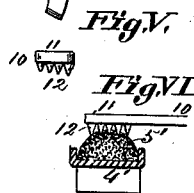
G. H. WESSELING.
DEVICE FOR LIGHTING LAMPS, &c.

No. 418,599.

Patented Dec. 31, 1889.



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UNITED STATES PATENT OFFICE.

GEORGE H. WESSELING, OF ST. LOUIS, MISSOURI.

DEVICE FOR LIGHTING LAMPS, &c.

SPECIFICATION forming part of Letters Patent No. 418,599, dated December 31, 1889.

Application filed July 26, 1889. Serial No. 318,734. (No model.)

To all whom it may concern:

Be it known that I, GEORGE H. WESSELING, of the city of St. Louis, in the State of Missouri, have invented a certain new and useful Improved Device for Lighting Lamps, &c., of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

Figure I is a side view of a lamp, part in section, and showing the device applied thereto. Figs. II and III are top views of the burner, showing the friction device in two positions, the outer shell of the burner being in horizontal section at II III, Fig. I. Fig. IV is a detail vertical section showing the friction device in elevation. Fig. V is an end view of the friction-tip. Fig. VI is a detail section showing a modification in which a fulminating pellet is seen in place of the match.

My invention consists in features of novelty hereinafter described, and pointed out in the claims.

The invention will be described as applied to a kerosene-lamp; but it may obviously be as readily applied to a gas-burner.

1 is the body of the lamp, and 2 the burner, having a cone 2^a, formed with a flame or wick slot 2^b. These may be of any desired size and form.

I will first describe the device as constructed for the use of a match.

Attached to the side of the wick-carrier 3 is a tube 4, forming a socket to receive the stem of a match and hold the head 5 of the match in close proximity to the wick 6. The tube should be slotted at 7 for the introduction of a pin for the discharge of the stem of the match after use. The match is inserted either through the flame or wick slot in the cone or by first removing the cone.

8 is a vertically-arranged rock-shaft turning in a bearing or sleeve 9, and having an arm 10 extending horizontally, whose end 11 is roughened upon the under side, having teeth 12, which are by the movement of the arm brought in contact with the head of the match and ignite it.

13 is an arm extending from the rock-shaft through a slot 14 in the side of the burner-shell, and to which may be attached a cord or

equivalent 15, which is drawn to cause the teeth 12 to impinge against the head of the match and ignite it.

In order to return the friction device to its normal position, a spring 16 is used. This spring is attached at one end 17 to the burner-shell, and the other end engages a projection 18 of the rock-shaft.

In overhead car-lamps, or in other lamps where access cannot be readily had to the arm 13, and where the bottom of the lamp is easy of access, the cord 15 passes through a tube 19, open at both ends and tightly soldered in the lamp-body, and extends through it from top to bottom.

20 is a ring on the cord.

Where access can at all times be had to the arm 13, the cord 15 and tube 19 may be dispensed with, or the tube alone may be dispensed with, while the cord is retained to enable the lighting device to be operated from a distance. The rough or toothed surface 12 passes over the match twice as the cord is pulled, and the parts return to normal position under the force of the spring 16, so that if the first abrasion fails to ignite the match the second one may ignite it.

In the device shown in Fig. VI a cup 4', forming a socket, is provided to receive a pellet of some fulminate 5', which will ignite by friction of the roughened surface 12 against it, the pellet occupying the same position as the head of the match. The pellet is also inserted either through the flame or wick slot in the cone or by first removing the cone.

In operating the device the wick is sufficiently turned up for the flame from the match or fulminate to come in contact with it and ignite it; or in case of a gas-burner the gas is turned on and the cord is pulled and then released.

I claim as my invention—

1. The combination, with a burner, of a device for holding fulminating material, the vertically-arranged rock-shaft 8, having an arm 10, extending horizontally and provided with a rough under surface 12, and the arm 13, by which the rock-shaft is oscillated, substantially as and for the purpose set forth.

2. The combination, with a burner, of a de-

vice for holding the fulminating material, the vertically-arranged rock-shaft 8, having an arm 10, extending horizontally and provided with a rough under surface 12, the arm 13, the projection 18 on the rock-shaft, and the spring 16, secured to the burner at one end and engaging the projection at the other end, substantially as and for the purpose set forth.

3. The combination, with a burner, of a device for holding fulminating material, the rock-shaft having an arm 10, with rough surface 12, arm 13, spring 16, cord 15, and cord-tube 19, passing through the body of the

lamp, substantially as and for the purpose set forth.

4. The combination, with a burner, of a match-tube 4, the rock-shaft 8, having an arm 10, provided with an end 11, formed with a rough under surface 12, the projection 18, the arm 13, and the spring 16, substantially as and for the purpose set forth.

GEORGE H. WESSELING.

In presence of—

SAML. KNIGHT,

BENJN. A. KNIGHT.