

(No Model.)

E. WHIPPLE & A. GUDMUNSON.
LIGHTING ATTACHMENT FOR LAMPS, &c.

No. 509,563.

Patented Nov. 28, 1893.

Fig. 1.

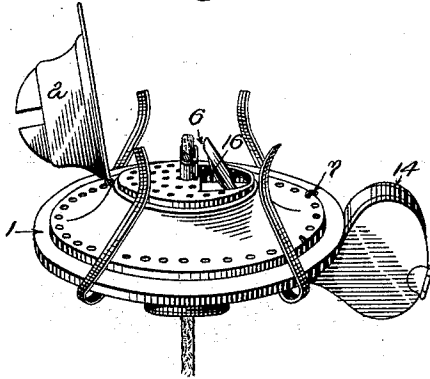


Fig. 2.

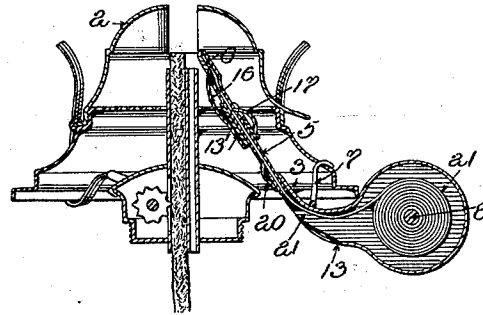


Fig. 3.

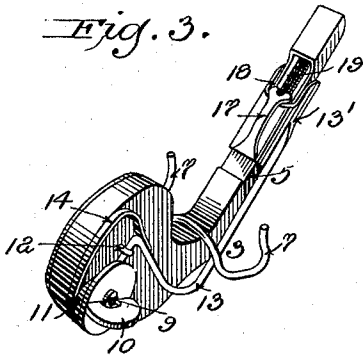


Fig. 4.

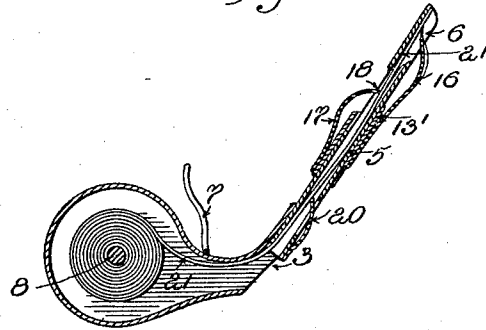


Fig. 5.

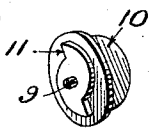
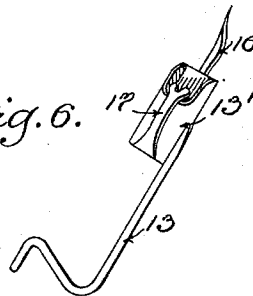


Fig. 6.



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UNITED STATES PATENT OFFICE.

EDSON WHIPPLE AND ABRAHAM GUDMUNSON, OF LEHI CITY, UTAH
TERRITORY.

LIGHTING ATTACHMENT FOR LAMPS, &c.

SPECIFICATION forming part of Letters Patent No. 509,563, dated November 28, 1893.

Application filed June 8, 1893. Serial No. 476,915. (No model.)

To all whom it may concern:

Be it known that we, EDSON WHIPPLE and ABRAHAM GUDMUNSON, citizens of the United States, residing at Lehi City, in the county of Utah and Territory of Utah, have invented a new and useful Lighting Attachment for Lamps, &c., of which the following is a specification.

Our invention relates to lighting attachments for lamps and gas brackets, but more especially for the former, and to that class thereof employing a fulminating strip.

The objects of the invention are to provide a cheap and simple device adapted to be conveniently applied and operated, and when operated to feed to the point of ignition a fulminate and to explode the same in close relation to the wick or burner.

Other objects and advantages of the invention will appear in the following description, and the novel features thereof will be particularly pointed out in the claims.

Referring to the drawings:—Figure 1 is a perspective view of a lamp burner, the same being provided with an attachment constructed in accordance with our invention. Fig. 2 is a transverse sectional view of the burner and attachment. Fig. 3 is a detail in perspective of the attachment. Fig. 4 is an enlarged longitudinal sectional view. Fig. 5 is a detail in perspective of the operating shaft. Fig. 6 is a detail of the reciprocating feed-arm and sleeve.

Like numerals of reference indicate like parts in all the figures of the drawings.

In carrying out our invention we employ a circular casing 1, providing the same at one side with a cover 2 hinged at one side to the wall of the casing and adapted to be opened to give access to the casing. The lower inner side of the wall of the casing is provided with a narrow throat 3, and the same has secured thereto or formed as a part thereof a narrow passage or tube 5 that extends up to within a short distance of the lamp wick or the burner of the gas bracket and has its inner side wall cut away as indicated at 6. The casing is provided with wire prongs 7, which when inserted through the usual air perforations with which the lamp burner is provided, may be bent to engage the same and thus form a con-

venient support or means of attachment for the lighting device with the lamp. The casing has extending from its solid wall an internal stud 8 and also eccentrically located therewith an external stud 9. The inner stud 8 serves to receive the web or strip of fulminate, whereas the outer stud forms an axis or shaft for a thumb-nut or button 10. This button is provided upon its inner side with one or a series of cam fingers 11. Above the stud 9 an eye 12 is formed on the wall of the casing, and in this eye is located the lower end of a bayonet-shaped arm 13, the said arm at its upper end terminating adjacent to the fulminate-receiving tube, and is secured to a reciprocating sleeve 13' that is mounted exteriorly upon the tube 5 and is designed to move up and down thereon as actuated by the arm through the medium of the cam fingers. A bowed spring 14 is secured to the casing at one end and at its free end bears upon the angle of the bayonet-shaped arm serving to normally depress the same at its lower end into the path of the cam fingers, whereby said arm may be operated by said fingers successively as the thumb-nut is rotated. At its inner side there is secured to the sleeve an igniting finger 16 whose upper end is inwardly bent and extends into the cut away wall of the fulminate receiving tube. At its rear side the sleeve is provided with a forked spring 17 which takes into an opening 18 formed in the back of the tube 5 and has its prongs resting upon guide ribs with which the bottom of the tube 5 is provided. This completes the construction with the exception of a spring 20 which is secured exteriorly to the bottom of the tube 5 and has its upper end inwardly bent and passed through the opening in the tube for the purpose of aiding in the retention of the strip and preventing its backward movement.

21 designates the strip, which is of the usual kind, being provided at intervals with fulminates. The strip is wound upon the internal stud of the casing and its free end is passed upwardly through the tube 5. In order to explode a fulminate it is simply necessary to partially rotate the thumb-nut, which, as will be obvious, will reciprocate the bayonet-shaped arm and its sleeve, the fork serving

to force the strip upward so as to expose a fulminate opposite the opening in the upper end of the tube. As soon as the cam finger has released the bottom of the bayonet-shaped arm, the spring acting upon said arm will quickly force it downward or retract it, and as it descends the exploding finger will be drawn across the fulminate, thus exploding the one exposed and igniting the lamp-wick, or burner, as the case may be. It is during this retraction of the sleeve that the holding spring at the lower end of the tube serves its function, and it prevents a retrogression of the strip when the sleeve descends and holds the strip in position for the igniting-finger to move thereover and cause the explosion.

From the foregoing description, in connection with the accompanying drawings, it will be seen that we have provided an extremely cheap, simple, and convenient device adapted to be applied to any of the ordinary lamps employed for domestic, railroad, or other purposes, and by this employment to obviate the necessity and uncertainty of lighting with matches as well as oftentimes the danger of using the same.

Various modifications in the details of our invention will suggest themselves, and we therefore do not limit the invention to the precise details which we have shown, but hold that we may make such alterations as may be found necessary from time to time and yet be within the scope of our invention.

Having described our invention, what we claim is—

1. The combination with a burner, of a casing arranged adjacent thereto and provided at one side with an opening, a fulminating strip-tube extending upward therefrom and terminating adjacent to the burner and having an opening near its upper end, a sleeve mounted for reciprocation upon the tube, a yielding finger secured at one side of the sleeve and passing through the opening and adapted to bear upon the strip and be dragged thereacross at each downward movement of the sleeve, and means for reciprocating said sleeve, substantially as specified.

2. The combination with a burner, of a casing arranged adjacent thereto and provided

with an opening at one side, and a fulminating strip passage or tube extending upwardly therefrom and provided at its front and rear sides with openings, a sleeve mounted for reciprocation upon the tube, an igniting finger secured at one side of the sleeve and taking into one of the openings, a feed spring secured to the sleeve and mounted for reciprocation at the side of the casing, a spring for depressing the rod, a rotatable thumb-button, and cam fingers arranged upon the thumb-button and adapted to operate upon the lower end of the rod, substantially as specified.

3. The combination with a burner, of a circular casing having an opening at one side, and a tube extending from the opening and having its bottom provided with opposite ribs, a sleeve mounted for reciprocation upon the tube, an igniting finger extending from one side of the sleeve and terminating in the tube, a forked feed spring extending from the opposite side of the sleeve and terminating in the tube upon the ribs, a lower holding spring secured to the tube and passing through an opening therein, a bayonet shaped arm, an eye for guiding the same, a bowed spring secured to the casing and bearing upon the arm, a stud extending from the casing, a thumb-button mounted for rotation upon the stud, and a series of cam fingers mounted upon the button and adapted to operate against the lower end of the arm, substantially as specified.

4. The combination with a lamp-burner having a series of surrounding openings, a circular casing open at one side and provided with a hinged cover, a fulminate-receiving tube, means for feeding the fulminate through the tube, and a pair of wire arms secured to the tube and passed through the perforations of the burner and bent over the same, substantially as specified.

In testimony that we claim the foregoing as our own we have hereto affixed our signatures in the presence of two witnesses.

EDSON WHIPPLE.
ABRAHAM GUDMUNSON.

Witnesses:

JAMES HARWOOD,
FRANK YEORERNOE.