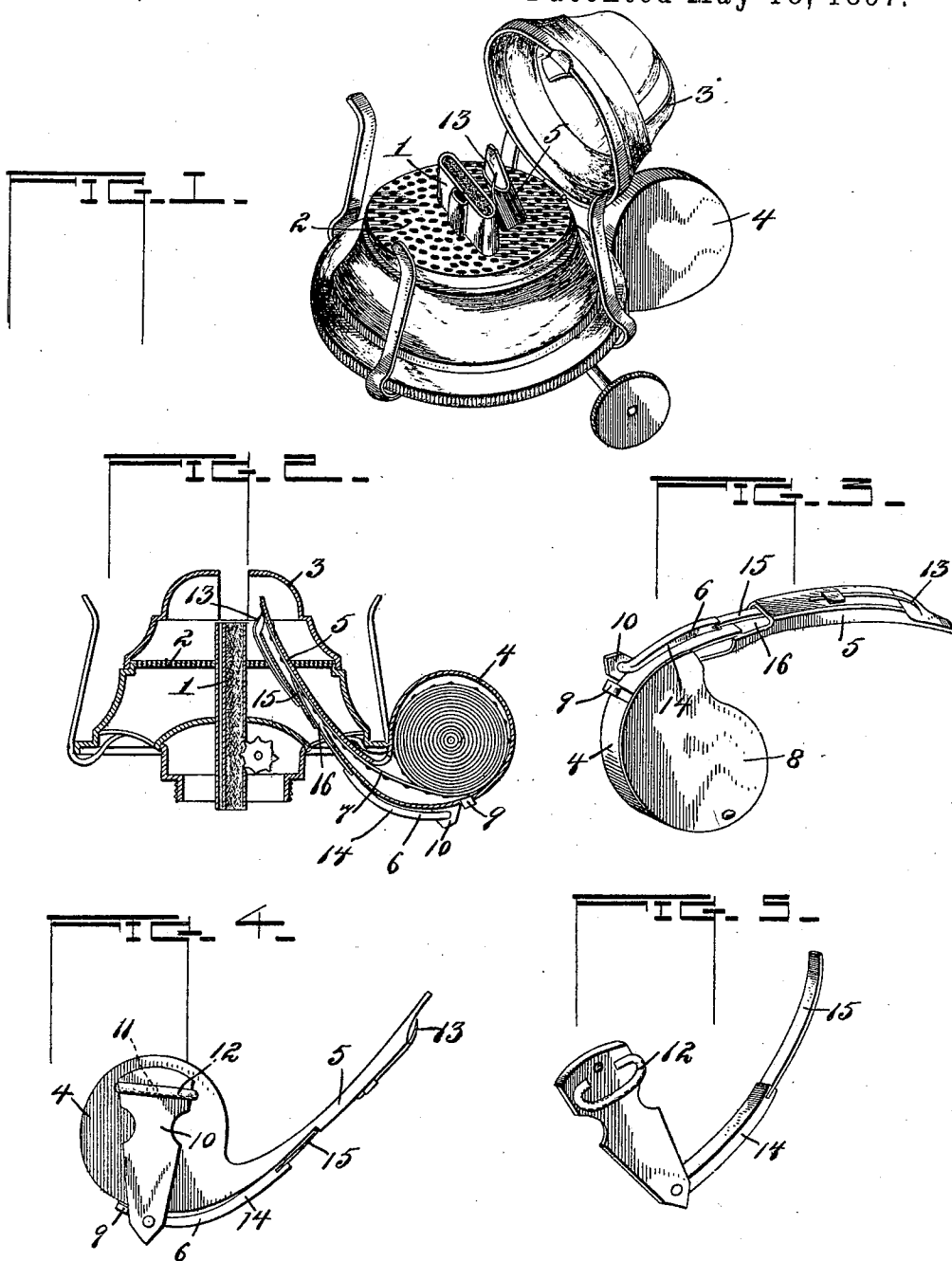


(No Model)

A. GUDMUNSEN & J. B. GADDIE.
LIGHTING ATTACHMENT.

No. 582,735.

Patented May 18, 1897.



Inventors
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UNITED STATES PATENT OFFICE.

ABRAHAM GUDMUNSEN AND JAMES B. GADDIE, OF LEHI CITY, UTAH,
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SAME PLACE.

LIGHTING ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 582,735, dated May 18, 1897.

Application filed July 31, 1896. Serial No. 601,220. (No model.)

To all whom it may concern:

Be it known that we, ABRAHAM GUDMUNSEN and JAMES B. GADDIE, citizens of the United States, residing at Lehi City, in the county of Utah and State of Utah, have invented a new and useful Lighting Attachment, of which the following is a specification.

This invention relates to igniting devices for lamp, gas, and other burners, and is designed particularly as an improvement on the lighting attachment described in Letters Patent No. 509,563, dated November 28, 1893.

The object of the improvement is to simplify, cheapen, and increase the usefulness and efficiency of the attachment, to reduce the number of parts, and provide a construction of compact form.

For a full understanding of the merits and advantages of the invention reference is to be had to the accompanying drawings and the following description.

The improvement is susceptible of various changes in the form, proportion, and the minor details of construction without departing from the principle or sacrificing any of the advantages thereof, and to a full disclosure of the invention an adaptation thereof is shown in the accompanying drawings, in which—

Figure 1 is a perspective view showing the invention applied to a lamp-burner. Fig. 2 is a vertical longitudinal section thereof. Fig. 3 is a detail perspective view of the attachment disconnected from the burner. Fig. 4 is a side elevation of the attachment. Fig. 5 is a detail view of the feeder and its actuating-lever.

Corresponding and like parts are referred to in the following description and indicated in the several views of the drawings by the same reference-characters.

The invention is designed to be applied to the various styles and patterns of burners, whether using oil or gas, for lighting them without requiring the striking of a match or the application of a lighted taper or splint. Inasmuch as the device is particularly designed for lamp-burners, it is shown in this connection in the drawings, the burner illustrated being of ordinary form and comprising a wick-tube 1, galleried frame 2, and cone 3.

The attachment comprises a casing 4 to contain the roll of fulminate, a tube 5, extending from a side of the casing and terminating within a short distance of the wick-tube, and a feeder 6 for moving the fulminate strip 7 through the tube 5. The casing 4 is secured to the burner in any substantial and convenient way and is open at one side for the introduction of the roll of fulminate or for any required purpose, a door or cover 8 closing the open side of the casing, so as to protect and retain the roll of fulminate in place. An edge portion of the case is cut and folded upon itself, forming a stop 9, which limits the backward movement of the feeder by engaging with the lever 10. The lever 10 is mounted upon a stud 11, projecting from the closed side of the case, and is provided with a finger-grip 12, by means of which the lever is vibrated to advance the fulminate strip through the feed-tube.

The feed-tube 5 curves throughout its length, and the side adjacent to the wick-tube 1 is removed so as to expose the fulminate when ignited to admit of the flame being communicated to the wick or gas, so as to light the same. An igniter 13 is secured to the feed-tube 5, and its terminal portion projects across the path of the fulminate strip, so as to explode the fulminate when it is required to light the lamp or gas. This igniter 13 is elastic, so as to spring aside to admit of the fulminate strip feeding forward the proper distance.

The feeder comprises a curved arm 14 and a spring-strip 15, the latter being secured to or forming a part of the curved arm and operating within the end portion of the feed-tube, whereas the curved arm 14 lies exterior to the lower or outer portion of the feed-tube. The spring portion 15 operates through an opening 16 in a side of the feed-tube intermediate of its ends, and the extremity of the curved arm 14 is adapted to engage with the projecting portion of the side above the opening 16, so as to limit the forward movement of the feeder, the rear movement being limited by the lever 10 engaging with the stop 9 in the manner aforesaid. By having the upper or outer portion 15 of the feeder made elastic it will conform to the shape of the feed-

tube and can be made comparatively thin, so as to occupy a small space, thereby admitting of the feed-tube being compact and of small proportions. The roll of fulminate being placed within the casing, an end portion thereof, as 7, is passed through the feed-tube 5, and when it is required to light the lamp the lever 10 is vibrated so as to advance the feeder, the latter carrying the strip of fulminate forward and beneath the igniter, which latter, by reason of its spring action, will explode the fulminate and produce a flame sufficient to light the wick. The feeder is returned to a normal position by actuating the lever, and the friction of the strip in the feed-tube and the action of the igniter thereon will be sufficient to prevent the strip from moving backward when the feeder is returning to an initial position.

20 Having thus described the invention, what is claimed as new is—

1. In a lighting device, the combination of a casing for receiving a roll of fulminate, a feed-tube extending from the casing and having the terminal portions of the side adjacent to the burner cut away, an igniter secured to the cut-away side of and projecting across the path of the tube, a lever pivoted to the closed side of the casing and provided with a finger-grip, an arm exterior to the tube and having pivotal connection with the said lever, and an elastic feeder operating within the closed portion of the feed-tube and having connection with the said arm, substantially as set forth.

35 2. In a lighting attachment, the combination of a casing, a feed-tube curving in its length and extending from the casing, and having the terminal portions of its outer side

cut away, a spring-igniter secured to the said cut-away side and having its terminal portion extending across the path of the tube, a lever 40 eccentrically pivoted to the closed side of the casing and bearing a finger-grip, a rigid arm exterior to the feed-tube and having pivotal connection with the lever, a spring-feeder operating within the closed portion of the feed-tube and having connection with the said arm, 45 and stops for limiting the throw of the feeder, substantially as and for the purposes set forth.

3. The herein-described lighting attachment, comprising a casing for receiving a roll of fulminate and having an edge portion cut and folded upon itself to form a stop, a feed-tube extending from the casing and having a terminal of the side adjacent to the burner cut away, a spring-igniter secured to the cut-away side and extending across the path of the tube, a lever pivoted to a side of the casing and provided with a finger-grip, an arm exterior to the feed-tube and having connection with the lever, and limited in its backward movement by engaging with the aforesaid stop and in its forward movement by engaging with a portion of the aforesaid cut-away side of the feed-tube, and a spring-feeder operating within the outer portion of the feed-tube and having connection with the arm, 60 substantially in the manner set forth.

In testimony that we claim the foregoing as our own we have hereto affixed our signatures 70 in the presence of two witnesses.

ABRAHAM GUDMUNSEN.

JAMES B. GADDIE.

Witnesses:

JAMES HARWOOD,

D. T. FOWLER.