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PATENT



SPECIFICATION

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PROVISIONAL SPECIFICATION.

**Improvements in or relating to Cigar and Cigarette Lighters and Lamps for Illuminating or other purposes.**

I, CHARLES LESLIE NEWLAND, of 93, Shooters Hill Gardens, Eltham, in the County of Kent, Engineer, do hereby declare the nature of this invention to be as follows:—

5 This invention relates to improvements in cigar or cigarette lighters and lamps.

This invention has for its object to provide a lamp which can be instantly lighted for illuminating or other purposes or for lighting cigars or cigarettes.

10 A further object is to provide a lamp in which the igniting means may be operated in an improved manner and so arranged that the said means may be instantly placed into or out of operative position and thus prevent accidents caused through premature lighting of the device.

15 According to the chief features of this invention the igniting means are adapted to be actuated by the depression of a member, and are detachably mounted in a well or casing formed in the petrol or like container of the lamp, so that they may be turned into or out of operative position.

20 According to one form of this invention the upper end of a cylindrical container or body of the lamp which is adapted to hold a quantity of petrol, paraffin or the like, is threaded to receive the screwed and flanged portions of a smaller cylindrical casing which is adapted to project into the container. The upper end of this casing or well is closed by a tightly fitting flanged plate or member which is adapted to carry the means for igniting a wick. The upper end of the wick is adapted to project through a suitable hole or tube provided in the flange of the casing and the remaining portion of the wick is adapted to lie in the petrol container which may contain cotton wool or other  
25 absorbing medium in the usual manner. The flange member is formed or provided at its upper side with a pair of arms or lugs between which is rotatably mounted a sparking wheel formed with a serrated edge in the usual manner to engage with a flint which is slidably mounted in a tube projecting through the flange member and normally disposed within the well. The flint is projected upwardly against the face of the wheel by a coiled spring arranged in the depending tube and the spring pressure is adapted to be actuated by a screw which is threaded in the lower end of the said tube. The sparking wheel is adapted to be rotated across the flint by depressing a vertical plunger rod against the action of a coiled spring. This rod is connected to the wheel by  
30 one or a pair of arms connected at one end to the wheel and at the other end to an extension carried by the rod. The sliding rod, which is formed or provided with a suitable actuating knob, is mounted parallel with the flint tube

[Price 6d.]



and is guided and adapted to slide in the flange member and in a bracket carried by the lower end of the flint tube. A suitable cover is adapted to enclose the sparking wheel and this cover is preferably screwed on to a threaded boss formed on the flange member. The cover is provided with a suitable hole or opening to permit the sparks to pass to the wick. The flange member is preferably formed with a knurled edge to enable it to be easily turned in the well to place the opening in the cover out of alignment with the wick. Thus the lighting of the wick will be prevented should the plunger rod be accidentally depressed. To light the lamp the flange member is rotated to place the opening in the cover in alignment with the wick and the plunger rod is depressed to rotate the sparking wheel and cause the sparks to fly through the opening to the said wick as will be well understood. 5 10

If desired, the body or container of the lamp could be of annular shape to enable the flint adjusting means to be actuated from the bottom of the lamp.

In a slightly modified construction a pinion wheel is rotatably mounted on a spindle and to one side of the sparking wheel and the abutting faces of the wheels are formed or provided with co-operating enlargements or cams. Thus when the pinion wheel is actuated by a rack bar, which is connected to the plunger rod, in any suitable manner, the sparking wheel will be turned only in one direction. A suitable spring is arranged to normally press the co-operating cams in engagement. If desired, the plunger rod may be arranged to extend through the cover which may fit tightly on an upstanding flange on the flange member. In this instance the actuating knob is detachably connected to the protruding plunger or rod. 15 20

In another modified construction the sparking wheel is formed or provided with preferably a pair of grooved pulley wheels over which is passed a cord of catgut, or other suitable material. The cord, which is passed through suitable guides or holes, is connected at each end to a sleeve slidably mounted on the flint tube. The intermediate portion of the cord passes over one pulley and down into the well and then under another pulley or a guide extending from the plunger rod and over the other pulley. When the plunger rod, which is suitably guided against rotation, is depressed, the sleeve is raised against the action of a suitable coiled spring disposed around the flint tube and between the flange member and the said sleeve. This action will rotate the sparking wheel owing to the cord binding in the grooves, and produces the ignition sparks. During the return movement of the spring pressed sleeve after the knob is released, the cord will not bind sufficiently in the grooves to rotate the sparking wheel. Thus the sparking wheel will rotate only in one direction to act on the flint in an efficient manner. 25 30 35

The improved lamp will be found particularly useful for domestic purposes and will take the place of the ordinary electric flash lamp. When the lamp is to be used as a cigar lighter the lower end of the body could be enlarged to enable the same to be screwed down to a base or a counter. 40

Dated this 6th day of January, 1919.

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#### COMPLETE SPECIFICATION.

### Improvements in or relating to Cigar and Cigarette Lighters and Lamps for Illuminating or other purposes. 50

I, CHARLES LESLIE NEWLAND, of 93, Shooters Hill Gardens, Eltham, in the County of Kent, Engineer, do hereby declare the nature of this invention and

in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

This invention relates to cigar and cigarette lighters and lamps of the kind wherein the igniting means including a sliding spring controlled plunger, sparking-wheel and spring pressed flint are detachably mounted in a well or casing formed in the petrol or like container which is provided with the wick.

The object of this invention is to provide a lighter or lamp so arranged that the igniting means may be instantly turned into or out of operative position and thus prevent accidents caused through premature lighting of the device.

According to the chief feature of this invention the igniting means which are adapted to be actuated by the depression of a plunger are arranged on a member rotatably mounted in a well or casing formed in the petrol or like container of the lamp, so that they may be turned into or out of operative position.

The invention will now be described with reference to the accompanying drawings in which:—

Figure 1 is a vertical section of one form of this invention, and

Figure 2 is an enlarged detail.

As shown, the upper end of a cylindrical container or body of the lamp *a* which is adapted to hold a quantity of petrol, paraffin or the like, is threaded to receive the screwed and flanged portion *b* of a smaller cylindrical casing *c* which is adapted to project into the container *a*. The upper end of this casing or well *c* is closed by a rotatably mounted flanged plate or member *d* which is adapted to carry the means for igniting a wick *e*. The upper end of the wick *e* is adapted to project through a suitable hole or tube *f* provided in the flange of the casing *c* and the remaining portion of the wick *e* is adapted to lie in the petrol container *a* which may contain cotton wool or other absorbing medium in the usual manner. The flange member *d* is formed or provided at its upper side with a pair of arms or lugs *g* between which is rotatably mounted a sparking wheel *h* formed with a serrated edge in the usual manner to engage with a flint *i* which is slidably mounted in a tube *j* projecting through the flange member *d* and normally disposed within the well *c*. The flint *i* is projected upwardly against the face of the wheel *h* by a coiled spring *k* arranged in the depending tube *j* and the spring pressure is adapted to be actuated by a screw *l* which is threaded in the lower end of the said tube *j*. The sparking wheel *h* is adapted to be rotated across the flint *i* by depressing a vertical plunger rod *m* against the action of a coiled spring *n*. A pinion wheel *o* is rotatably mounted on a sparking wheel spindle *p* and to one side of the sparking wheel *h* and the abutting faces of the wheels *h* and *o* are formed or provided with co-operating enlargements or cams *q*. Thus when the pinion wheel *o* is actuated by a rack bar *r*, which is connected to the plunger rod *m* in any suitable manner, the sparking wheel *h* will be turned only in one direction. A suitable spring *s* is arranged to normally press the co-operating cams *q* in engagement. If desired, the plunger rod *m* may be arranged to extend through a cover *t* which may fit tightly on an upstanding flange *u* on the flange member *d*. In this case the actuating knob *v* is detachably connected to the protruding plunger or rod *m* as shown. The cover *t* is provided with a suitable hole or opening *w* to permit the sparks to pass to the wick *e*. The flange member *d* is formed with a knurled edge *x* to enable it to be easily turned in the well *c* to place the opening *w* in the cover *t* out of alignment with the wick *e*. Thus the lighting of the wick *e* will be prevented should the plunger rod *m* be accidentally depressed. To light the lamp the flange member *d* is rotated to place the opening *w* in the cover *t* in alignment with the wick *e* and the plunger rod *m* is depressed to rotate the sparking wheel *h* and cause the sparks to fly through the opening *w* to the said wick, as will be well understood.

If desired, the body or container of the lamp could be of annular shape to enable the flint adjusting means to be actuated from the bottom of the lamp.

If desired the rod *m* may be connected to the sparking wheel *h* by one or a pair of arms connected at one end to the wheel *h*, and at the other end to the extension *m'* carried by the rod *m*. In this case the operating plunger *m* is mounted externally of the cover *t*.

In another modified construction the sparking wheel is formed or provided with preferably a pair of grooved pulley wheels over which is passed a cord of catgut or other suitable material. The cord, which is passed through suitable guides or holes, is connected at each end to a sleeve slidably mounted on the flint tube. The intermediate portion of the cord passes over one pulley and down into the well and then under another pulley or a guide extending from the plunger rod and over the other pulley. When the plunger rod, which is suitably guided against rotation, is depressed, the sleeve is raised against the action of a suitable coiled spring disposed around the flint tube and between the flange member and the said sleeve. This action will rotate the sparking wheel owing to the cord binding in the grooves, and produce the ignition sparks. During the return movement of the spring pressed sleeve after the knob is released, the cord will not bind sufficiently in the grooves to rotate the sparking wheel. Thus the sparking wheel will rotate only in one direction to act on the flint in an efficient manner.

The improved lamp will be found particularly useful for domestic purposes and will take the place of the ordinary electric flash lamp. When the lamp is to be used as a cigar lighter the lower end of the body could be enlarged to enable the same to be screwed down to a base or a counter.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is:—

1. A lighter or lamp of the kind described wherein the igniting means which are operated by the depression of a plunger are arranged on a member rotatably mounted in a well or casing formed in the petrol or like container of the lamp, as and for the purpose described.

2. A lighter or lamp comprising a petrol or like container, a casing or well formed with a flange and adapted to fit into said container, a wick mounted in said casing flange, a member rotatably mounted in said well or casing and adapted to carry the igniting means, including a sliding plunger, flint and sparking wheel, and a cover, having a sparking hole, enclosing said igniting means, substantially as described.

3. The improved lighting device or lamp substantially as described with reference to the accompanying drawings and subject to the modification referred to.

Dated this 6th day of August, 1919.

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