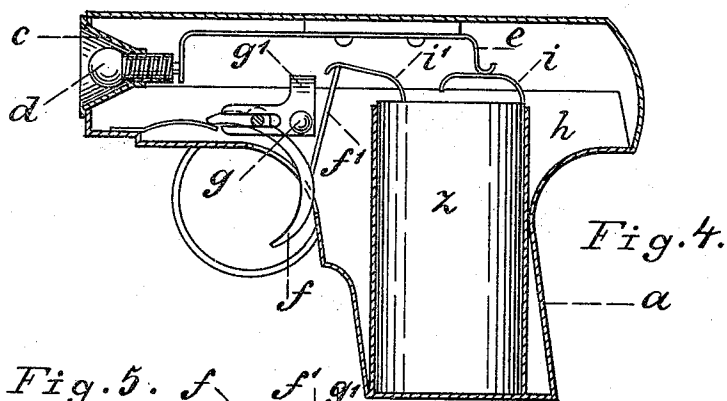
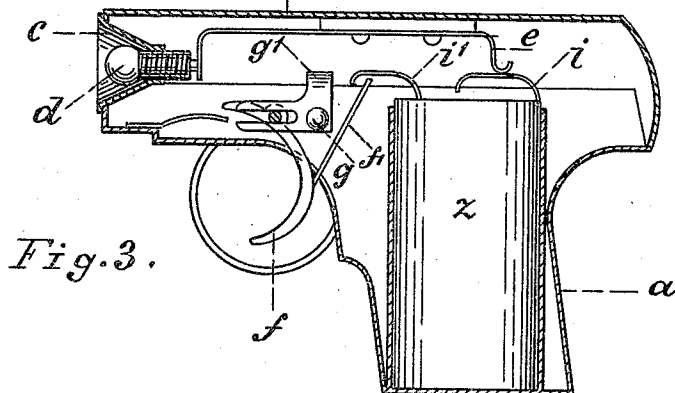
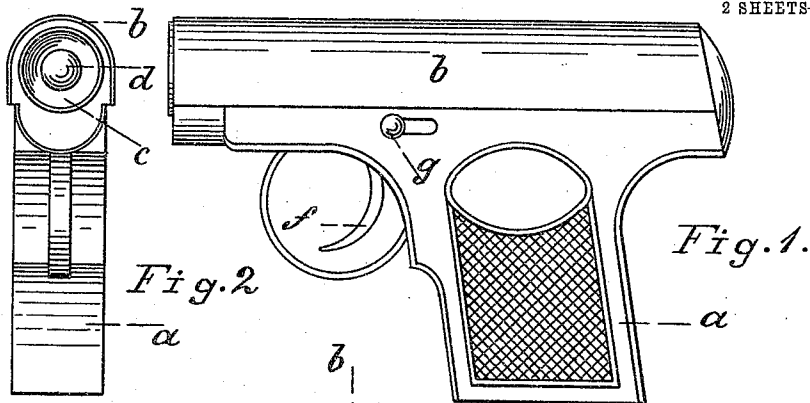


W. KNOPF.
POCKET LANTERN.
APPLICATION FILED MAY 16, 1912.

1,096,726.

Patented May 12, 1914.

2 SHEETS-SHEET 1.



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10.62

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2 SHEETS-SHEET 2.

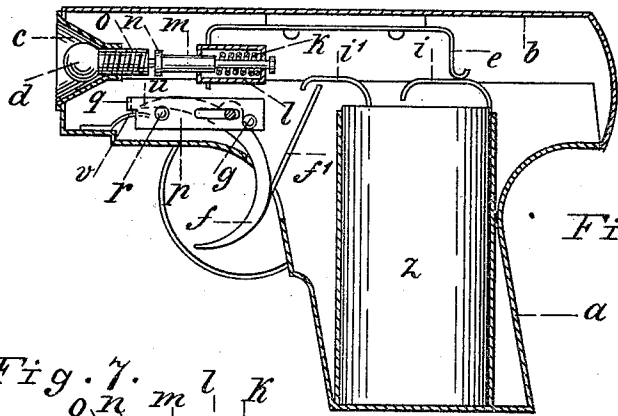


Fig. 6.

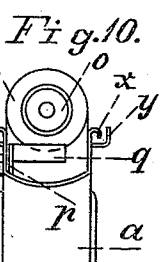
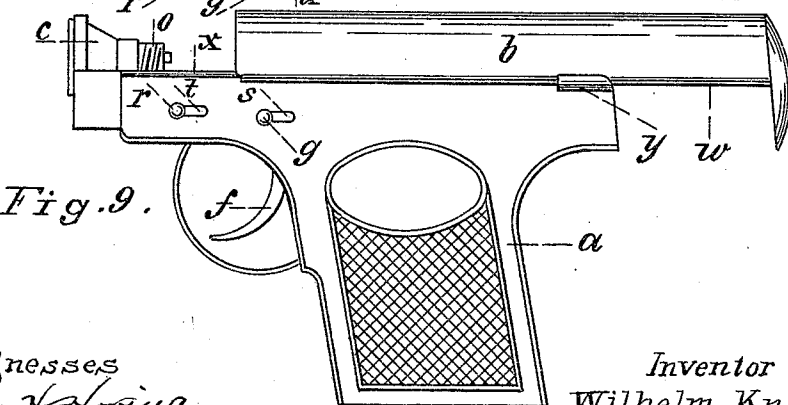
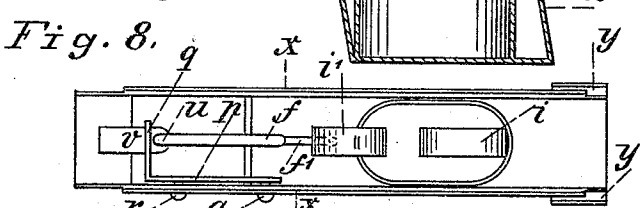
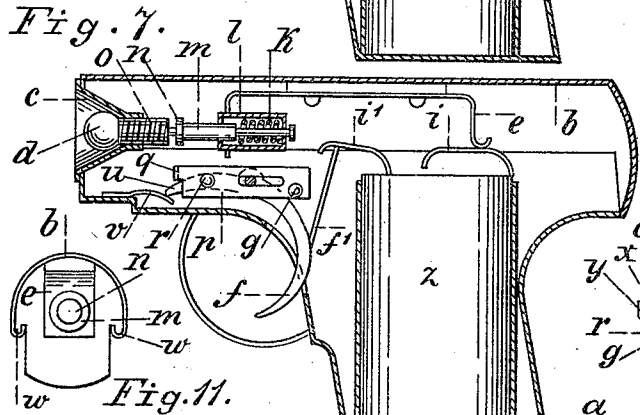


Fig. 10.

Fig. 8.

Fig. 9.

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UNITED STATES PATENT OFFICE.

WILHELM KNOFF, OF BERLIN, GERMANY.

POCKET-LANTERN.

1,096,726.

Specification of Letters Patent.

Patented May 12, 1914.

Application filed May 16, 1912. Serial No. 697,689.

To all whom it may concern:

Be it known that I, WILHELM KNOFF, a subject of the Emperor of Germany, and resident of 12/13 Schinkestrasse, Berlin, Germany, have invented new and useful Improvements in Pocket-Lanterns, of which the following is a specification.

The object of my invention is to construct an electric pocket-lantern which can be conveniently carried upon the person and used whenever desired.

The general increase in use which the electric pocket-lanterns have found has rendered it desirable to increase the convenience and efficiency thereof by the improved shape and construction detailed below.

My invention is illustrated on the accompanying drawings in which:

Figures 1 and 2 are side and end elevations showing the outside appearance of the device; Fig. 3 shows a longitudinal section of one form of lantern with the electric circuit broken; Fig. 4 shows a longitudinal section with the circuit closed; Fig. 5 shows a plan of the lantern partly broken away to show the interior. Fig. 6 shows a longitudinal section of a lantern with a circuit lock and a yielding contact for the lamp; Fig. 7 shows the lock in operative position; Fig. 8 shows the opened lantern in plan, and Fig. 9 in side view with the covering-plate partly drawn off; Fig. 10 shows the lantern in rear view with the covering-plate taken off, and Fig. 11 shows the covering-plate in front-view.

As may be seen from Fig. 1 the casing of the pocket-lantern has the shape of a Browning pistol. The butt end *a* serves to hold the electric battery, and the barrel *b* contains in its front a small reflector *c* and an incandescent lamp *d*. Behind the lamp and reflector the switch mechanism is located. The trigger *f* of the pistol serves for actuating the switch so that by pulling the trigger *f* the circuit is closed and the lamp *d* is cut in circuit. This use of the trigger *f* for closing the circuit is an essential improvement over the usual pocket lantern in which a button is to be kept pressed down for the purpose of keeping the lamp burning for the desired length of time. The new lamp is also provided with a slide *g* by which the switch may be held closed.

With reference to Fig. 3, the barrel of the pistol, forming the upper portion of the casing, consists, as in Fig. 1, of two parts

of which the lower part is in rigid connection with the butt end *a*, and contains in its front end the reflector and the lamp *d*. The upper part *b* of the barrel can be moved along the lower part *h* in order to open the casing. This part *b* contains the resilient contact member *e* which is in connection with the lamp-socket.

The electric battery *z* is within the butt-end *a*, and has the two contacts *i*, *i*¹. The contact piece *i* and the member *e* connect the battery and the lamp. The current flows when the contact-piece *i*¹ is also brought in connection with the lamp. This is effected by means of the lever *f* in form of a trigger. The arm *f*¹ touches the contact *i*¹ when the trigger *f* is pulled as is usual in ordinary pistols. The circuit is complete and the lamp *d* burns as long as the trigger *f* is kept drawn back. If the circuit is to be closed and the lamp kept burning for a longer time, the slide *g* is pressed back and the angle *g*¹ engages above the contact *i*¹ (Fig. 5) and the contact is bent down and comes in contact with the arm *f*¹. This may be done when the lamp is to be used as a standing lamp. For this purpose my pocket lamp is thus shaped that it stands on the lower surface of the butt *a*.

The incandescent lamps for electric pocket-lanterns, due to their different places of manufacture, frequently have threaded necks of different length so that the contact member *e* in each case has to be bent to come into contact with the screwed in lamp. In order to remove this drawback, there is arranged a yieldable contact which regulates itself to the length of the threaded neck of the lamps, whereby the metallic connection between the lamp and the battery is obtained without bending the contact member. In Figs. 6 and 7 this arrangement is illustrated.

The threaded neck *o* of the lamp *d* is screwed into the reflector *c*, and meets the head *n* of the yieldable contact whereby the pin *m* is pressed back, and the spring *k* provided within the sleeve *l* is compressed. The spring *k* presses the head *n* against the neck *o* of the lamp *d* (Figs. 6 and 7), and in this way the lamp is connected to the contact *i* of the battery through the metal member *e* the end of which is connected to the sleeve *l* in which the yieldable contact is carried. On assembling, the pin *m* is pressed back more or less according to the length of the neck *o* of the lamp *d*, but remains always in

contact with the neck of the lamp *d*. Furthermore, in Figs. 6 and 7 there is illustrated an arrangement making it impossible for the slide for securing a permanent contact to be

5 unintentionally actuated in. This arrangement consists of a plate *p* movable within certain limits. The front end of the plate is rectangularly bent thus forming an arm *q* projecting into the barrel of the pistol (Fig. 8). Two buttons *g* and *r* project through the wall and may be pushed along slots *s* and *t* (Fig. 9) so that the plate *p* can be moved forward and backward the length of the slots. The arm *q* of the plate *p*, (as illustrated by Fig. 6), lies in front of the arm *u* of the trigger *f* so that the circuit can be completed only by drawing the trigger, and the lamp *d* burns only as long as the trigger is actuated. But for the purpose of effecting a permanent lighting of the lantern, the plate *p*, by means of the buttons *g* or *r*, is pushed rearwardly into the position shown in Fig. 7, whereby the arm *q* engages above the pressed down arm *u* of the trigger *f* and keeps it in the position shown in Fig. 7, in which the arm *q* contacts with the spring *v* and completes the circuit. The lantern now will remain lighted as long as the plate *p* remains in the position of Fig. 7, that is, as long as the arm *u* of the trigger *f* is kept down by the arm *q*. When the contact lock is pushed to the position of Fig. 6, then the arm *u* is no longer beneath the arm *q*, the spring *v* is freed, and the lantern is extinguished because the circuit is interrupted.

The unintentional burning of the lamp is prevented by protecting the trigger *f* by a bridle or guard so that it cannot be drawn by objects carried in the pocket. The plate *p* is held from movement, when the trigger is not drawn, by the arm *q* when in the position of Fig. 6, and the plate *p* can only move backwardly when the trigger has been drawn. When all parts are at rest and the lantern is carried in the pocket a closing of the circuit is thus made impossible by unintentional external influences.

The lantern may be opened by pushing back the cover plate *b* (Fig. 9) in order to exchange worn or broken parts and exhausted battery. The cover-plate *b* of semi-circular cross-section, corresponding to the top portion of the barrel, is provided with in-turned edges forming grooves *w, w* (Fig. 11) engaging in grooves *x, x* of the base portion. These grooves form a neat joint which slides easily, and no difficulty is experienced because of the thinness of the sheet metal. For the purpose of facilitating the introduction of the cover plate into the grooves *x, x* of the base portion, beneath said grooves there are arranged short guiding angles *y, y* whereon the grooves *w, w* of the cover plate *b* are put. In this position the grooves *w, w*

register with the grooves *x, x* that pressure is only necessary to unite the cover plate *b* with the base portion.

I claim as my invention:

1. An electric pocket lantern comprising a casing having a sliding cover at one side and an angular extension at the opposite side; a cell in said extension and adapted to be withdrawn when the cover is opened; a lamp in one end of the casing; a member secured to said cover and yieldably contacting with one lamp terminal and one terminal of the cell; and a conductor connecting the other lamp and cell terminals.

2. An electric pocket lantern comprising a casing having a sliding cover at one side and an angular extension at the opposite side, a battery in said extension and removable when said cover is opened, a lamp in one end of the casing, a resilient member secured to said cover and adapted to contact with one lamp terminal and one battery terminal when the cover is closed, and a conductor adapted to connect the other lamp and battery terminals.

3. In an electric lantern, the combination of a sheet-metal casing having a sliding cover at one side and an angular extension at the opposite side; an electric cell in said extension; a lamp socket in one end of said casing; a lamp mounted in said socket; a yieldable member attached to said cover and adapted to connect one cell terminal and one lamp terminal; a circuit closer having front and rear arms, the latter adapted, when the circuit closer is drawn, to contact with the other cell terminal; and means electrically connecting the lamp socket to the front arm of the circuit closer.

4. In an electric lantern, the combination of a sheet-metal casing having a sliding cover at one side and an angular extension at the opposite side; an electric cell in said extension; a lamp socket in one end of said casing; a lamp mounted in said socket; a sleeve carried in the cover; a pin slidable in said sleeve in alinement with the socket lamp neck; a spring in said sleeve and pressing the pin against one lamp terminal, and means electrically connecting the lamp socket and said sleeve to the respective terminals of the electric cell.

5. In an electric lantern, the combination of a sheet-metal casing having a sliding cover at one side and an angular extension at the opposite side; an electric cell in said extension; a lamp socket in one end of said casing; a lamp mounted in said socket; a yieldable member attached to said cover and adapted to connect one cell terminal and one lamp terminal; a circuit closer having front and rear arms; the latter adapted, when the circuit closer is drawn, to contact with the other cell terminal; means electrically connecting the lamp socket to the front arm of

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the circuit closer, and means for holding the circuit closer in drawn position.

6. In an electric lantern, the combination of a sheet-metal casing having a sliding cover at one side and an angular extension at the opposite side; an electric cell in said casing; a lamp socket in one end of said casing; a lamp mounted in said socket; a yieldable member attached to said cover and adapted to connect one cell terminal and one lamp terminal; a circuit closer having front and rear arms; the latter adapted, when the circuit closer is drawn, to contact with the other cell terminal; means electrically connecting the lamp socket to the front arm of the circuit closer, and means adapted to hold the circuit closer in inoperative position and to be itself held in inoperative position when the circuit closer is in inoperative position.

7. In an electric lantern, the combination of a sheet-metal casing having a sliding cover at one side and an angular extension at the opposite side; an electric cell in said casing; a lamp socket in one end of said casing; a lamp mounted in said socket; a yieldable member attached to said cover and adapted to connect one cell terminal and one lamp terminal; a circuit closer having front and rear arms, the latter adapted, when the circuit closer is drawn, to contact with the other cell terminal; means electrically connecting the lamp socket to the front arm of the circuit closer, a sliding plate having a bent arm adapted to move rearwardly to engage over said front arm when the circuit closer is drawn and to be held in forward position by the front arm when the circuit closer is not drawn.

8. In an electric lantern, the combination of a sheet-metal casing having a sliding

cover at one side and an angular extension at the opposite side; an electric cell in said casing; a lamp socket in one end of said casing; a lamp mounted in said socket; a yieldable member attached to said cover and adapted to connect one cell terminal and one lamp terminal; a circuit closer having front and rear arms, the latter adapted, when the circuit closer is drawn, to contact with the other cell terminal; means electrically connecting the lamp socket to the front arm of the circuit closer, and a sliding plate having a bent arm adapted to be held in forward position by said front arm and adapted to be placed over said front end when the circuit closer is drawn.

9. In an electric lantern, the combination of a sheet-metal casing having a sliding cover at one side and an angular extension at the opposite side; an electric cell in said casing; a lamp socket in one end of said casing; a lamp mounted in said socket; a yieldable member attached to said cover and adapted to connect one cell terminal and one lamp terminal; a circuit closer having front and rear arms, the latter adapted, when the circuit closer is drawn, to contact with the other cell terminal; means electrically connecting the lamp socket to the front arm of the circuit closer, and a sliding plate having a bent arm adapted to be held against said front arm when the front arm is in upper position and to be disposed above said front arm when the circuit closer is pulled.

In witness whereof I have hereunto set my hand in the presence of two witnesses.

WILHELM KNOPF.

Witnesses:

HENRY HASPER,

WOLDEMAR HAUPT.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."