G. DE FERNANZO.

POCKET LAMP.

APPLICATION FILED OCT. 10, 1910.

1,009,053.

Patented Nov. 21, 1911.

Fig. 1.

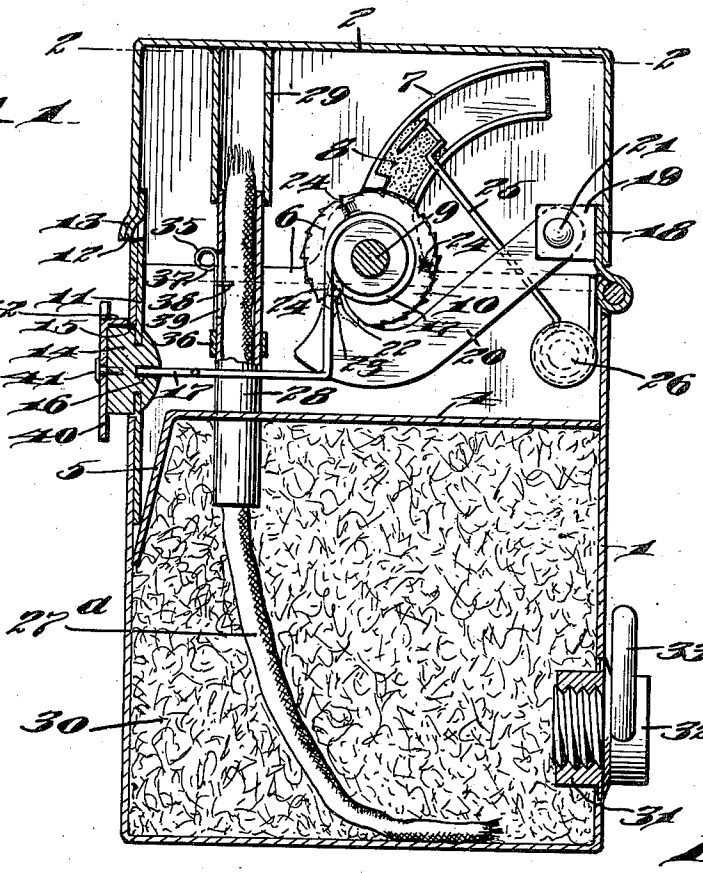


Fig. 4.

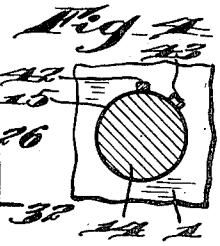
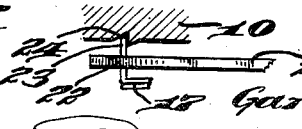


Fig. 2.

Fig. 3.



Witnesses

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POCKET-LAMP.

1,009,053. Specification of Letters Patent. Patented Nov. 21, 1911.

Application filed October 10, 1910. Serial No. 586,158.

To all whom it may concern:

Be it known that I, GARIBALDI DE FERNANZO, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Pocket-Lamps, of which the following is a specification.

My invention relates to improvements in pocket lamps, more particularly designed as an improvement upon the construction set forth in my application for patent filed September 20, 1910, and given Serial No. 582,814, the object of the invention being to provide an improved construction of rotary spark throwing wheel, and improved means for operating the wheel.

A further object is to simplify the construction set forth in my application above referred to and render more positive the throwing of sparks upon the rotary movement of the wheel.

With these and other objects in view, the invention consists in certain novel features of construction and combinations and arrangements of parts, as will be more fully hereinafter described and pointed out in the claims.

In the accompanying drawings: Figure 1, is a view in vertical longitudinal section illustrating my improvements. Fig. 2, is a view in section on the line 2—2 of Fig. 1. Fig. 3, is an enlarged fragmentary detail view illustrating the formation of one of the notches in the face of the wheel, and Fig. 4, is a view in vertical section through the push button 14.

1, represents the body of the lamp, and 2 the cover thereon. In the upper end of the body 1, a sheet metal plate 4 is secured by solder or otherwise, and is provided at one end with a downwardly bent tongue 5 soldered thereto and together with the plate 4, constituting the closure for one end of the tank formed in body 1. Plate 4 is provided at opposite sides with upwardly projecting flanges 6, on one of which a guide 7 is made integral for a block 8. The block 8, which I employ is a composition known in the trade as fire stone. It is a composition or alloy composed of cerium, rare earth and iron. One formula is given as sixty per cent. cerium; ten per cent. rare earth; and thirty per cent. iron.

9, is a shaft which is supported in the flanges 6, and on which a metal wheel 10 is mounted, and against the periphery of which the block 8 engages, as will more fully hereinafter appear.

11, represents a catch which projects downward between the tongue portion 5, and the end wall of the body 1, and is provided with a projection 12 near its upper end to engage in a notch or depression 13 in cover 2, so as to hold the cover in its closed position.

14, is a push button which is in the form of a rivet projecting through an opening 15 in body 1 and riveted in catch 11. This button is provided on its inner end with a socket 16, into which one end of a spring wire 17 projects, exerting pressure on the catch to hold it in locking position.

Cover 2 is connected to the body 1 by means of a hinge plate 18 which is stamped out forming a perforated ear 19 to which one end of a lever 20 is pivotally connected by means of a rivet 21. This lever is curved in form at its free end, and is provided with an opening 22 through which one end 23 of the spring 17 is projected and engages in notches 24 in the face of wheel 10. Spring 17, between its ends, is coiled around shaft 9 so that the movement of the lever as the cover is closed, tends to wind the spring on the shaft, and when the cover is released, the spring pressure on the lever forces the cover open. The block 8 is pressed downward against the face of wheel 10 by means of a spring 25 which is bent at one end so as to engage over the block, is coiled between its ends around the stud or button 26 secured to one of the flanges 6, and its opposite end bearing against the body as shown.

The notches 24 are formed in the face of wheel 10 by simply upsetting the metal with a chisel, which not only forms a notch in the metal, but forces the metal out from the face of the wheel as shown most clearly in Fig. 3.

The periphery of wheel 10 is formed in much the same manner as are the notches 24, except that the punching tool is somewhat curved and gives to the periphery of the wheel the formation of an ordinary file face used for deep and rapid cutting. With a surface of this kind there will be great cutting action against the block, so as to insure the throwing of sparks.

27ª is a wick which extends down into the body 1 and up through a tubular wick guide 28 secured in plate 4, and projects above the

wick substantially in line with the meeting faces of wheel 10 and block 8, and when the cover is closed, is inclosed by a tube 29 fixed in the cover. Body 1 may of course contain various illuminating fluids, but is preferably stuffed with absorbent material 30 adapted to be saturated with gasolene, the gasolene being supplied through a screw-threaded collar 31 fixed in the body 1, normally closed by a plug 32 having a ring 33 attached to the plug and adapted to be swung either to the position shown in Fig. 1, or to a position at right angles thereto for conveniently turning the plug.

In order that the wick may be moved, a wick raiser 35 is provided and comprises a single piece of sheet metal bent forming a spring clamp 36 at one end, and a finger hold 37 at its other end, and provided with a spur 38 between its ends projecting through a slot 39 in the tube 28 into engagement with the wick 27^a. It will thus be noted that by raising and lowering the device 35, the wick is correspondingly adjusted, and by drawing the finger hold 37 outward, the spur 38 may be drawn out of the wick and reëngage the same after the device 35 is moved downward, thus allowing the entire wick to be consumed in the lamp.

To prevent any possibility of the button 14, being accidentally pushed inward to release the cover, a disk 40 of greater diameter than the button is pivotally secured on the outer end of the button by means of the rivet or stud 41, and is provided with an inwardly projecting tongue 42, said tongue preventing the inward movement of the button except when moved into register with a notch 43 in body 1, as seen most clearly in Fig. 4. This notch is formed by pressing the metal outward so that one wall of the notch serves as a stop when the disk is revolved, whereby the device may be readily turned to position to unlock. Before the device is placed in the pocket, this disk is revolved slightly so that it is securely locked and the cover cannot accidentally open.

Various slight changes might be made in the general form and arrangement of parts described without departing from my invention, and hence I do not limit myself to the precise details set forth, but consider myself at liberty to make such changes and alterations as fairly fall within the spirit and scope of the appended claims.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent is:

1. In a pocket lamp, the combination with a body adapted to contain illuminating fluid, and a wick located in the body and projecting up through the top of the body, of a wheel mounted to turn on the upper portion of the body, a block of friction material engaging the periphery of said wheel substantially in line with the wick, a cover hinged on said body, a lever connected to said cover, said lever having an opening in one end, and said wheel having notches in its face, a spring projecting through the opening of the lever, and into the path of said notches, and exerting pressure on said lever to open the cover, and means for holding the cover in closed position, substantially as described.

2. In a pocket lamp, the combination with a body adapted to contain illuminating fluid, and a wick located in the body and projecting up through the top of the body, of a wheel mounted to turn on the upper portion of the body, a block of friction material engaging the periphery of said wheel substantially in line with the wick, a cover hinged on said body, a lever connected to said cover, said lever having an opening in one end, and said wheel having notches in its face, a spring projecting through the opening of the lever, and into the path of said notches, and exerting pressure on said lever to open the cover, a catch holding the cover in closed position and the other end of said spring pressing against said catch to hold it in locking position, substantially as described.

3. In a pocket lamp, the combination with a body adapted to contain illuminating fluid, and a wick located in the body and projecting up through the top of the body, of a shaft supported in the upper portion of the body, a wheel mounted on said shaft, a block of friction material engaging the periphery of said wheel, a spring coiled around said shaft, notches in the face of said wheel, one end of said spring engaging in said notches, a lever connected at one end to said cover and at its other end to said spring, a catch holding the cover in closed position, said spring holding said catch in locking position, and said wheel having a roughened periphery comprising a plurality of curved depressions, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

GARIBALDI DE FERNANZO.

Witnesses:
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