

A. COTILS.  
 POCKET LAMP.  
 APPLICATION FILED JUNE 11, 1910.

987,961.

Patented Mar. 28, 1911.

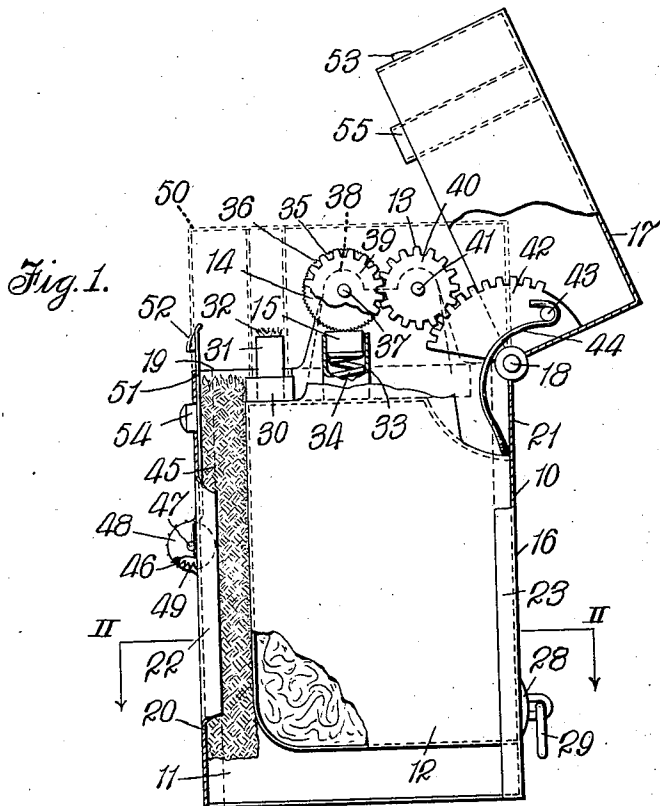


Fig. 2.

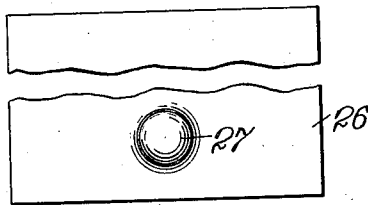
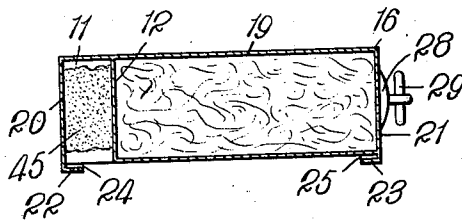


Fig. 3.



Witnesses:  
 Charles C. Abbe  
 C. Massert.

Inventor  
 Alphonse Cotils  
 By his Attorney  
 W. T. Griswell.

# UNITED STATES PATENT OFFICE.

ALPHONSE COTILS, OF NEW YORK, N. Y.

POCKET-LAMP.

987,961.

Specification of Letters Patent. Patented Mar. 28, 1911.

Application filed June 11, 1910. Serial No. 566,392.

*To all whom it may concern:*

Be it known that I, ALPHONSE COTILS, a citizen of the United States, and a resident of New York, county and State of New York, have invented certain new and useful Improvements in Pocket-Lamps, of which the following is a full, clear, and exact specification.

This invention relates more particularly to a class of devices by which a light for convenient utility may be produced without the use of matches, and the primary object thereof is to provide a compact and efficient form of device which may be readily carried by a person in the pocket for use when required to light cigars, pipes, and for other purposes, and which is self-lighting, thus dispensing with the use of matches or the like.

Another object of the invention is to provide a lamp so constructed that an inflammable vaporous liquid may be carried therein and conveyed to a burner by an absorbent wick which is ignited by a spark produced by frictional contact of two metallic bodies, and still another object of my invention is to provide a simplified type of lamp wherein is also employed a wick in the form of a fuse or other easily enkindled material, thereby overcoming the danger of accidents which are liable to occur from the use of vaporous combustible liquids.

A further object of the invention is to provide means adapted to effectually operate the two metallic bodies for frictionally producing the spark which ignites either or both of the wicks, and furthermore to provide a form of casing adapted to inclose the various parts of my lamp for safe conveyance by a person, and which will permit said lamp to be conveniently filled with the inflammable liquid, or fitted with the inflammable fuse.

A practical embodiment of the invention is represented in the accompanying drawing forming a part of this specification in which similar characters of reference indicate corresponding parts in all the views, the said invention being more fully described hereinafter and then pointed out in the appended claims.

In the drawing, Figure 1 is a side view, partly fragmentary, of one form of pocket lamp embodying my invention. Fig. 2 is a view, transversely broken away, of the slide forming one of the side walls of the casing

of my lamp, and Fig. 3 is a section taken on the line II—II of Fig. 1.

Within the casing 10 is provided a chamber 11, a tank or receptacle 12, and above said tank is arranged the means 13 adapted to operate the igniting means or metallic bodies 14 and 15 for producing the spark by frictional contact therebetween by which my lamp is lighted as will be hereinafter more fully described, and all of said parts may be of any desired form and made of any suitable materials.

The casing 10 is substantially rectangular in shape and is formed of a body 16 and a cap or lid 17 which is hinged in any suitable manner, as at 18, to the body 16. The body 16 of the casing 10 has a side wall, as 19, and end walls, as 20 and 21. At the opposed vertical edges of the end walls 20 and 21 of the body 16 opposite to the wall 19 are arranged flanges 22 and 23 under which are formed grooves 24 and 25. In the grooves 24 and 25 a removable wall or slide 26 is adapted to be inserted for closing this part of said casing or to permit access to the interior thereof, and upon one face of the slide 26 is provided a finger-knob, as at 27, by which said slide may be readily moved in the grooves 24 and 25.

The tank 12 may be formed integral or made separate from the casing 10 and is arranged upon the end wall 21, in the lower part of which is provided a cap or stopper 28 having an eye in which is held a ring 29 so that the lamp may be fastened to a chain or the like carried by a person. Upon the upper part of the tank 12 is arranged a collar 30 projecting from the top of which is a burner 31 carrying a wick 32. After removal of the stopper 28, the tank 12 may be filled with gasolene, or other vaporous inflammable liquid which is adapted to be absorbed by the wick 32 and carried through the chamber 30 to the burner 31 and to the end of said wick when a light may be produced by ignition from a spark thrown-off from the metallic bodies 14 and 15.

Substantially centrally of the top of the tank 12 is held a tube 33 in which is arranged a spring 34 supporting the metallic body 15 which consists of a spark-producing material composed of cerium or alloys of cerium which when abraded will throw off a number of sparks. The spring 34 normally forces the block 15 of spark-producing material upwardly and outwardly through

the top-opening of the tube 33, where the surface of said block 15 contacts with the serrated edge 35 of the wheel or metallic body 14. The serrated wheel or metallic body 14 is held to rotate upon a stud or shaft 37 fastened in a bracket 38 provided upon the upper part of the wall 19 of the body 16.

To operate the igniting means or metallic bodies 14 and 15 I arrange upon the shaft 37 and connect also to the serrated wheel 14 a toothed wheel 39 by which said serrated wheel 14 is rotated, and the toothed wheel 39 is operated by a cog-wheel 40 rotatable upon a shaft 41 supported by the bracket 38. To rotate the cog-wheel 40 and the toothed-wheel 39 with sufficient rapidity to cause the metallic bodies 14 and 15 to frictionally produce and throw-off a spark a toothed segment 42 is provided to operate the cog-wheel 40. This toothed segment 42 is rigidly fastened to one wall interiorly of the cap or lid 17 so as to move in unison therewith, and upon one face of said toothed segment is provided a pin 43 to which is held one end of a spring 44 directed across the face of the toothed segment 42 and into the body 16 of the casing 10 where the opposite end of said spring rests against the inner face of the wall 21 of said casing. It is clear that the spring 44 is adapted to control the movement of the lid 17 simultaneously with the movement of the toothed segment 42, and said spring is preferably of a form having sufficient tension to swing the lid 17 with force from a closed position upon the body 16 to an open position, as shown in Fig. 1, whereby the toothed segment 42 will also be moved with force and in turn the cog-wheel 40 and the toothed wheel 39 will be rapidly rotated.

As previously mentioned my invention provides for dispensing with the use of any inflammable vaporous liquid in the tank 12, and instead thereof a fuse or wick 45 of other easily enkindled material may be employed to be lighted by the igniting means. For conveniently carrying a suitable fuse, as 45, within the lamp the tank 12 is formed of a size and proportion with respect to the body 16 that the chamber 11 is provided to extend horizontally across and vertically at one side of the interior of the body 16 of the casing 10. To raise or lower the fuse 45 so as to be properly lighted, a wheel 46 is held to rotate upon a pin 47 held in a lug, as at 48, provided upon the wall 20 of the body 16, and this wheel 46 is formed with peripheral teeth 49 adapted to grip the fuse 45 when said wheel is rotated by the finger of a person.

In order to hold the lid 17 securely locked when closed upon the body 16, as indicated by dotted lines 50, a spring-catch 51 is connected at one end to the interior of the wall

20 of said body, and upon the other end of said spring-catch is provided a clip 52 which is adapted to engage a notch or recessed part 53, formed in one wall of the lid 17. Projecting through an opening in the wall 20 is a push-button 54 which when pressed will force the spring-catch inwardly and out of engagement with the notch 52, thereby releasing the lid 17 from its locked position upon the body 16 and permitting the spring 44 to swing the lid open. Simultaneously with the opening of the lid 17 the spring 44 also operates the means 13, which in turn actuates the metallic bodies 14 and 15, and a spark is thrown therefrom and ignites the wick 32, or the fuse 45, or both if desired. To extinguish the light of the wick 32 a tube 55 is arranged in the lid 17 and said tube is adapted to pass over the wick 32 and burner 31 when said lid is closed upon the body 16.

In the foregoing description I have embodied the preferred form of my invention, but I do not wish to be understood as limiting myself thereto, as I am aware that modifications may be made therein without departing from the principle or sacrificing any of the advantages of this invention, therefore I reserve to myself the right to make such changes as fairly fall within the scope thereof.

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

1. In a pocket lamp; in combination; a substantially rectangular casing having a side wall and two end walls, each having a flange upon the edge thereof opposite to the side wall to provide a groove under each of the flanges; a slide removably held in said grooves; a lid having one of its ends hinged to one of the end walls of the casing; a receptacle within the casing, said receptacle being of smaller dimension than said casing so as to provide a chamber between the receptacle and a wall of the casing for a fuse to be carried therein; a burner provided upon the top of the tank at the end thereof opposite to the hinge of the lid and adapted to carry a wick therein; a tube formed substantially centrally of the top of the tank; a block of spark-producing material held within the tube; a bracket formed upon the top of the side wall; a serrated wheel rotatable upon a shaft held in one part of the bracket; a toothed wheel held to the serrated wheel and adapted to rotate said serrated wheel; a cog-wheel rotatable upon a stud held in another part of said bracket and meshing with the toothed wheel; a toothed segment provided interiorly of the lid at the end thereof which is hinged to the casing and meshing with the cog-wheel; a stud provided upon one face of the toothed segment; a spring having one end held to

the stud and the other end thereof resting against the interior surface of the end wall of the casing to which said lid is hinged, said spring normally serving to swing the toothed segment in a direction to revolve the cog-wheel and toothed wheel for rotating the serrated wheel to abrade the spark-producing material simultaneously with the opening of the lid from a closed position upon the casing; means provided upon the end wall of the casing opposite to the wall to which the lid is hinged and adapted to hold the lid in locked engagement when closed upon said body; and means provided in the same end wall and adapted to raise or lower a fuse in the chamber of the casing.

2. In a pocket lamp; the combination with a casing having a lid hinged thereto and having a tank therein provided with a burner at one end of the top of the tank; of a tube formed substantially centrally of the top of the tank; a spring seated within the tube; a block of spark-producing material loosely held within the tube and supported by said spring; a bracket formed upon the top of the casing; a serrated wheel rotatable upon a shaft held in one part of the bracket; a toothed wheel held to the serrated wheel

and adapted to rotate said serrated wheel; a cog-wheel rotatable upon a stud held in another part of said bracket and meshing with the toothed wheel; a toothed segment provided interiorly of the lid at the part thereof which is hinged to the casing and meshing with the cog-wheel; a stud provided upon one face of the toothed segment; a spring having one end held to the stud and the other end thereof resting against the interior surface of a wall of the casing to which said lid is hinged, said spring normally serving to swing the toothed segment in a direction to revolve the cog-wheel and the toothed wheel for rotating the serrated wheel to abrade the spark-producing material simultaneously with the opening of the lid from a closed position upon the casing; and means provided upon the casing and adapted to hold the lid in locked engagement when closed upon said body.

This specification signed and witnessed this sixth day of June A. D. 1910.

ALPHONSE COTILS.

Witnesses:

ROBT. B. ABBOTT,  
JOHN HABETS.