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PATENT



SPECIFICATION

Application Date, Mar. 4, 1918. No. 3789/18.

Complete Left, Aug. 24, 1918.

Complete Accepted, Mar. 4, 1919.

PROVISIONAL SPECIFICATION.

Improvements in Portable and Pocket Igniters or Lighters.

I, BERNARD PORDES, of 22, Christopher Street, Finsbury Square, London, E.C. 2, Manufacturer, do hereby declare the nature of this invention to be as follows:—

This invention relates to improvements in the construction of portable and pocket igniters or lighters operating by means of a striking flint causing a spark which lights a wick, incandesces a tinder, or the like.

In a known construction of this nature the spark is produced by rotating a wheel against a flint, it being noted that "flint" is used hereinafter as a generic term embracing any material with flint-like properties of producing a spark. Such a flint is often made of carborundum, an alloy of cerium, or other like bodies, and it is pressed against the aforesaid wheel by means of a spring in a wheel holder formed as a tube, and means have been provided for varying the compression of the spring as the flint wears.

The object of this invention is to improve the adjusting mechanism in such an igniter or lighter, and also the shape of the casing in which the wheel holder is inserted.

In the tubular wheel holders which have heretofore been used the adjustment of the spring behind the flint in the tube has been by means of a threaded screw, but difficulties are now experienced in providing this adjustment, and this invention as regards the wheel holder consists in constructing a small bar or plunger adapted to enter the tube of the wheel holder at its base, and provided with a projecting lug which co-operates with recesses cut in the side of the tube at a short distance from the base, and opening on to a slot which is continued to the lower end of the tube and up which is passed the projecting lug on the plunger. The recesses are of different heights longitudinally in the side of the tube, and by pressing up the plunger it may be turned so that the lug enters a predetermined slot somewhat in the fashion of a bayonet joint, it being understood that as the plunger is pressed inwards the spring also is compressed.

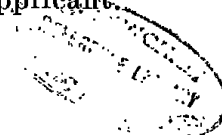
The wheel holder and spring tube are supported in a casing, preferably tubular, attached to a rounded top on the liquid or vapour container and has the novel feature that the spring tube is separate from its casing and may be withdrawn therefrom at the top of the vapour container.

By making the vapour container convex the igniter or lighter lid is put on more easily.

Dated this 4th day of March, 1918.

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27, Chancery Lane, London, W.C.,
Agents for the Applicant.

[Price 6d.]



COMPLETE SPECIFICATION.

Improvements in Portable and Pocket Igniters or Lighters.

I, BERNARD PORDES, of 22, Christopher Street, Finsbury Square, London, E.C. 2, Manufacturer, 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 improvements in the construction of portable and pocket igniters or lighters operating by means of a striking flint causing a spring in a wheel holder formed as a tube, and means have been provided for
 In a known construction of this nature the spark is produced by rotating a wheel against a flint, it being noted that "flint" is used hereinafter as a generic term embracing any material with flint-like properties of producing a spark. Such a flint is often made of carborundum, an alloy of cerium, or other like bodies, and it is pressed against the aforementioned wheel by means of a spring in a wheel holder formed as a tube, and means have been provided for varying the compression of the spring as the flint wears.

The object of this invention is to improve the adjusting mechanism in such an igniter or lighter, and also the shape of the casing in which the wheel holder is inserted.

In the tubular wheel holders which have heretofore been used the adjustment of the spring behind the flint in the tube has been by means of a threaded screw, but difficulties are now experienced in providing this adjustment, and this invention as regards the wheel holder consists in constructing a small bar or plunger adapted to enter the tube of the wheel holder at its base, and provided with a projecting lug which co-operates with recesses cut in the side of the tube at a short distance from the base, and opening on to a slot which is continued to the lower end of the tube and up which is passed the projecting lug on the plunger. The recesses are of different heights longitudinally in the side of the tube, and by pressing up the plunger it may be turned so that the lug enters a predetermined slot somewhat in the fashion of a bayonet joint, it being understood that as the plunger is pressed inwards the spring also is compressed.

The wheel holder and spring tube are supported in a casing, preferably tubular, attached to a rounded top on the liquid or vapour container and has the novel feature that the spring tube is separate from its casing and may be withdrawn therefrom at the top of the vapour container.

By making the upper end of the vapour container convex the igniter or lighter lid is put on more easily.

The accompanying drawings illustrate an embodiment of the invention as applied to a pocket lighter.

Fig. 1 is a side elevation of the lighter with the cap detached;

Fig. 2 is a section of Fig. 1;

Fig. 3 illustrates the wheel striking device removed from its casing; and

Fig. 4 illustrates the plunger spring and flint of the striker.

Referring to the drawings, 1 is the casing which, in conjunction with the interior fitting casing 2 forms a receptacle for the absorbent material 3 which is soaked with petrol or other gas producing substance, and it should be noted that by forming the upper end of the inside case 2 of a convex shape and also by means of a separate mounting it is much easier to replace the cap 4 than in the lighters ordinarily manufactured, in which the upper end is made flat; further, by reason of the separate mounting an edge 5 is provided which enables a better grip to be obtained on the inside casing 2 when it requires to be removed for replenishment of the gas producing substance.

Referring to Fig. 2, 6 is a tubular passage attached to the inner casing 2 in the known manner, and 7 is a detachable casing frictionally held within the passage 6, this also having been known before in connection with pocket lighters; in this invention, however, the casing 7 is formed at its lower end with a slot 8, the upper end of which slot is provided on each side with recesses 9 opening from the said slot, and a plunger 10 occupies the lower end of the casing 7, being adjusted in place by the co-operation of the lug 11 on the plunger 10, the lug being turned into one or other of the recesses 9 according as wear takes place on the flint 12 pressed into contact with the wheel 13 by means of a spring 14.

If it is found that the flint 12 is not giving a good spark the casing 7 is withdrawn and the plunger 10 moved forward to a higher recess, causing more compression of the spring 14 and the flint 12. This can be done without removing the casing 2 from the casing 1, and to ensure that the casing 7 is returned into correct position a small lug 15 is pressed out of one side of the casing 7 and occupies a corresponding recess in the neck of the passage 6 (see Fig. 1).

The striking device can thus be adjusted in a very short time and without soiling the fingers by coming into contact with the interior of the fuel receptacle.

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 portable lighter or igniter having in combination a striking device and a spark producing member, the contact of the said spark producing member with the said striking device being obtained by a spring interposed between a plunger and the spark producing member and adjustably secured in place by means of a projecting lug on the plunger co-operating with recesses opening from a slot in the side of the holder of the striking mechanism.

2. A portable lighter or igniter having in combination a striking device and a spark producing member associated as claimed in Claim 1, and wherein the striking mechanism is self-contained in a detachable casing frictionally held within a passage depending from a convex shaped top on the fuel container.

3. A portable lighter or igniter as claimed in Claims 1 or 2, comprising a striking wheel and its holder attached to a tubular casing containing a spark producing flint, and a spring, and having a slotted end with recesses on each side, and a plunger with a projecting boss adapted for entering one or other of the said recesses for the purpose of adjusting the compression of the said spring.

4. A portable lighter or igniter having its parts arranged and operating substantially as described herein with reference to the accompanying drawings.

Dated this 24th day of August, 1918.

PAGE & ROWLINGSON,
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27, Chancery Lane, London, W.C. 2,
Agents for the Applicant.

[This Drawing is a reproduction of the Original on a reduced scale.]

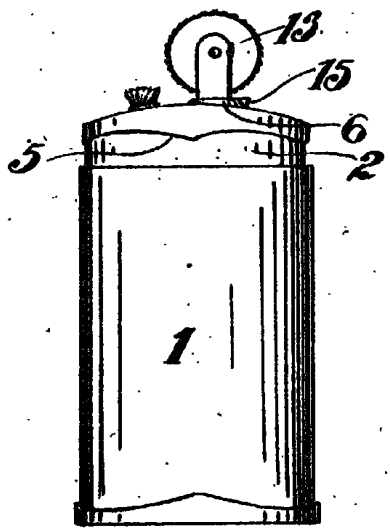
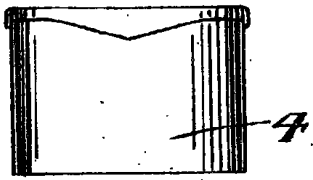


Fig. 1.

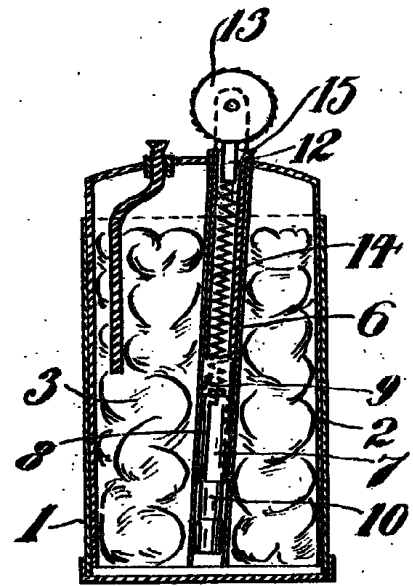


Fig. 2.

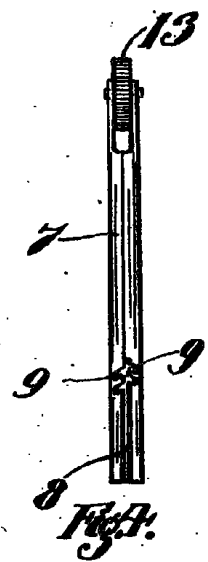


Fig. 5.

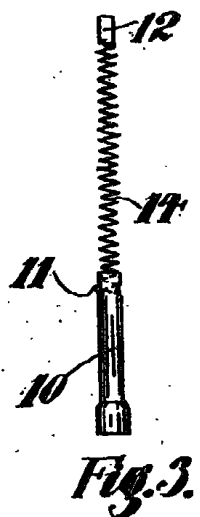


Fig. 3.

