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PATENT SPECIFICATION

357,355



Application Date: Sept. 2, 1930. No. 26,159/30.

Complete Accepted: Sept. 24, 1931.

COMPLETE SPECIFICATION.

Improvements in Petrol or like Lighters.

We, OSKAR FROSTIG, of 1, Spittelauerplatz, Vienna IX, Austria, a Polish Citizen, and LEO BETTER, of 29, Schuttelstrasse, Vienna II, Austria, an Austrian Citizen, 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:—

10 This invention relates to a petrol or the like lighter for pipes, cigarettes and the like, and has for its primary object to improve the method of mounting the wick. A further object is to improve the construction of the flint holder and its flint-feeding arrangements.

According to the invention the wick is wound on a wire member carried by a detachable wick holder. This is advantageously combined with a free cylindrical space formed in the petrol or the like container, such as by means of a wire spiral, absorbent tubular fabric suitably stiffened, or equivalent.

25 A further feature of the invention is that the forward movement of the flint against the spark striking wheel is effected by means of a rotatably mounted sleeve provided with an internal thread and secured against axial displacement, which, on rotation advances an exteriorly threaded smaller inner sleeve screwed therein and sliding over a flint guide tube, said inner sleeve carrying a rigid transverse pin sliding in two opposite slots in the flint guide and connected with a flint stopper by a spring.

Alternatively, a wing-nut form of flint feed as more particularly described later, may be adopted.

In the foregoing connection it is known to push up a flint carrier by providing the same with teeth or threads, securing same against rotation, and enclosing it by an internally threaded rotatably operating sleeve secured against axial movement.

The accompanying drawings illustrate a constructional form of the invention, as an example only, and in it

50 Figure 1 shows the wick carrier with the wick wound thereon and a windscreen;

Figure 2 shows the lighter in section, the wick being omitted;

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Figure 3 is an end view of Figure 2;

Figure 4 is a sectional plan view of Figure 2, taken on a plane level with the floor of the windscreen;

Figure 5 is a sectional detail view of a modification;

Figures 6 and 8 show parts of a holder for the cerium iron or flint, whilst

Figures 7 and 9 show respectively cross sections on the lines A—B and C—D seen in Figures 6 and 8;

Figure 10 is a sectional elevation of the parts seen in Figures 6 and 8 assembled together;

Figure 11 shows a different constructional form of the flint holder in sectional elevation from which the sleeve—Fig. 12, has been omitted; and

Figures 12 and 13 show parts of the second constructional form according to Figure 11, the flint guide 5 being omitted from Fig. 13.

Figure 14 is a cross section on the line J—K, Figure 12, and Figures 15 and 16 plan views of sleeve 15 and wing nut 19, looking from E—F and G—H respectively.

As may be seen in the drawing, the petrol or like container consists of two sheet metal parts 2, 3 one being pushed over the other, they being soldered together at the edge of the part 3, and thus being made liquid tight in all directions. The part 2 has applied to it the usual windscreen formed with perforations 4.

The holder 12 for the flint is also soldered up, so as to be tight as regards the petrol container. The only opening for introducing the wick and for filling the container with petrol is formed by the socket 6. Into this the threaded wick holder 7, which is rigidly connected with wire-member 8, is introduced. In the case of lighters not provided with a wind screen the thread on the socket 6 and the wick-holder 7 may be omitted, and ordinary conical fitting surfaces may be substituted therefore (Figure 5). The wick 9 (Figure 1) is wound round the wire member 8 and is inserted through the opening in the wick holder 7. A spiral 10 made of wire is fixed to the socket 6 in the interior of the petrol container (Figure

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2), the said wire spiral being solidly embedded in the cotton wool contained in the petrol container. Thus a free cylindrical space is created in the cotton wool insertion, into which the wick 9 wound on the wire member 8 can easily be introduced. The cotton wool makes contact with the wick either between the individual turns of the spiral 10 or transmits spirit to the wick via the spiral wire turns, so that the wick is always uniformly supplied. The wire spiral 10 may also be inserted into an absorbent fabric sleeve 10a so as to avoid the cotton wool being torn out when the wick is withdrawn, thus completely and effectively limiting the cylindrical space created for the wick in regard to the cotton wool.

The flint guide 5 is longitudinally slotted on each side up to its upper extremity. The top part is shaped so as to accommodate the sparking wheel 11.

The flint guide 5 is rigidly connected with the outside holder 12. The feed sleeve 13 (Figures 8 and 10) is provided with an internal thread diagrammatically indicated by a plain line in the drawings and is rotatably mounted in the holder 12 but is secured against any axial displacement by means of an annular groove 14 engaging a tongue 14' in the holder 12.

A small externally threaded sleeve 15 is provided in the feed sleeve 13 to which the compression spring and stopper 17 is fixed by means of a transverse pin 16. The pin 16 slides in the slots 18 of the flint guide 5.

If the feed-sleeve 13 is rotated, the sleeve 15 is forced to execute an axial movement only, as the pin 16 slides in the slots 18 and is thus prevented from twisting. By this the flint located above the stopper 17 is fed against the ignition or sparking wheel 11. The short spiral spring interposed between the pin 16 and the stopper 17 enables the pressure of the flint against the ignition wheel to be regulated within very narrow limits.

The holder shown in Figures 11 to 16 is a variation wherein the flint guide 5 is provided with an external thread indicated by a plain line, on which a wing nut 19 can be screwed up and down, the thread on the latter being indicated by a plain line. This wing nut 19 is turned around by means of a slotted engagement

sleeve 20 and is thereby axially displaced. Above the wing nut 19 a smooth sleeve 15 is slidably mounted, which, being secured against turning around by the pin 16 is forced to follow up the axial movement of the wing nut 19 thereby feeding the flint towards the ignition wheel 11.

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

1. A petrol or like lighter characterised by the fact, that the wick is wound on a wire member which is rigidly connected to the wick holder, the latter being detachably fitted in position.

2. Lighter according to Claim 1 characterised by the fact that a free cylindrical space is provided for the wick in the petrol or like container.

3. Lighter according to Claim 2, characterised by the fact that the free cylindrical space is formed by means of a wire spiral.

4. Lighter according to Claim 2 characterised by the fact that the free cylindrical space is formed by an absorbent tubular fabric stiffened by means of a wire spiral.

(5) Lighter according to Claim 1, characterised by the fact that the feed of the flint against the ignition wheel is effected by means of a rotatably mounted sleeve provided with an internal thread and secured against axial displacement, which, on rotation advances an exteriorly threaded smaller inner sleeve screwed therein and sliding over a flint guide tube, said inner sleeve carrying a rigid transverse pin sliding in two opposite slots in the flint guide and connected with a flint stopper by a spring.

(6) Lighter according to Claim 1, characterised by the fact that the feed of the flint against the ignition wheel is effected by means of a wing nut, which when turned moves axially on the externally threaded flint guide and thereby displaces a smooth sleeve resting thereon and provided with a pin sliding in longitudinal slots in the flint guide.

Dated this 2nd day of September, 1930.

RICHARD C. ROGERS,
Agent for the Applicant.

Fig. 1

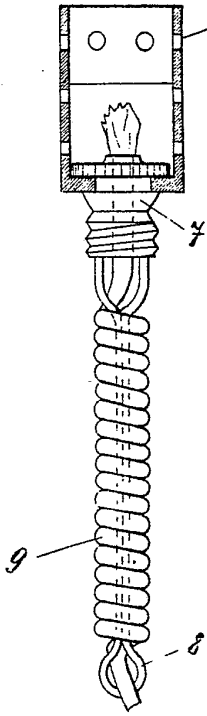


Fig. 2

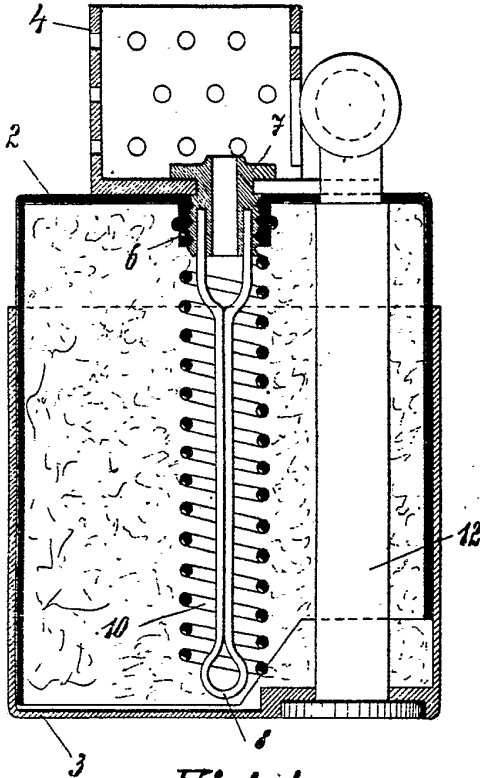


Fig. 3

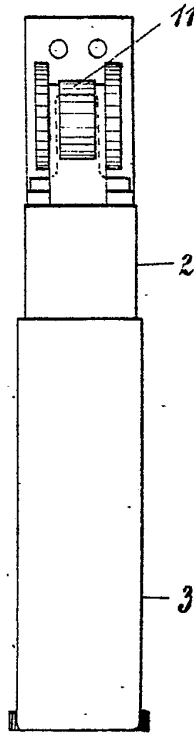


Fig. 5

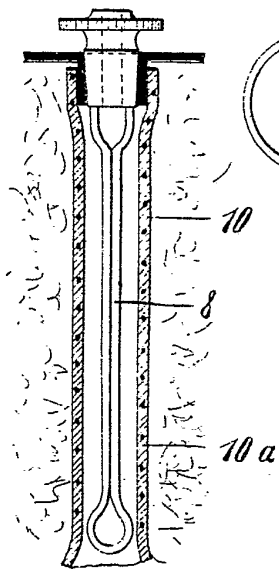


Fig. 4

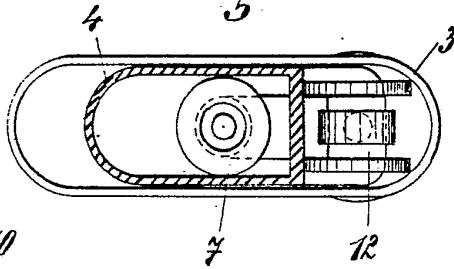


Fig. 6

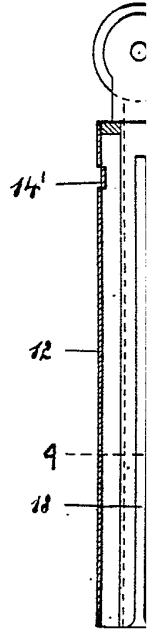
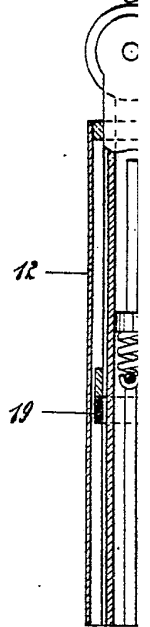


Fig. 7



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

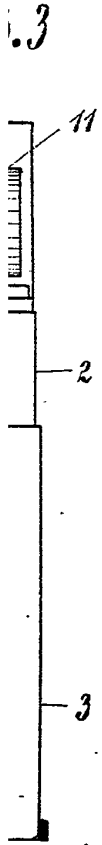


Fig. 6

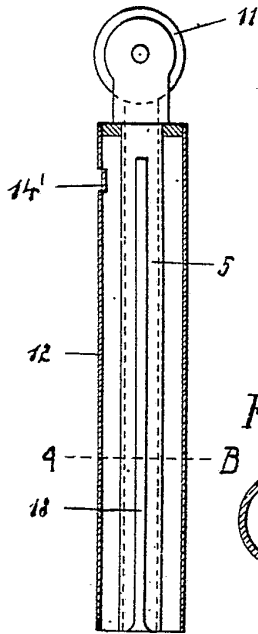


Fig. 7

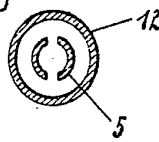


Fig. 8

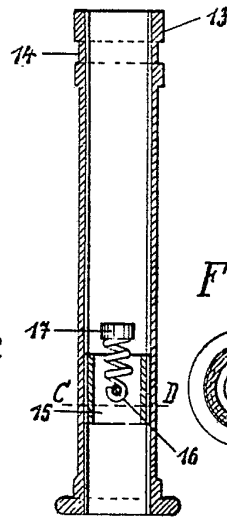


Fig. 9

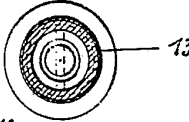


Fig. 10

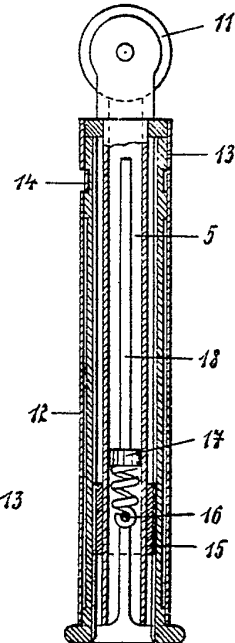


Fig. 11

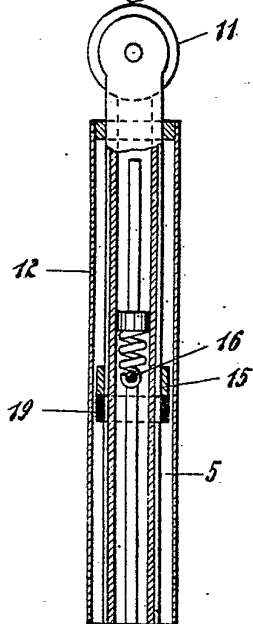


Fig. 12

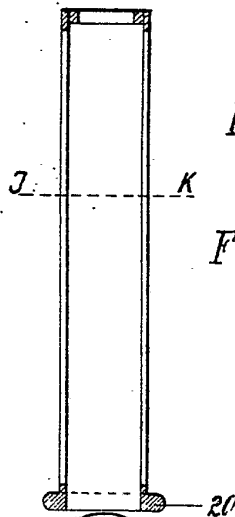


Fig. 14

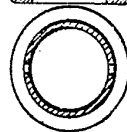


Fig. 13

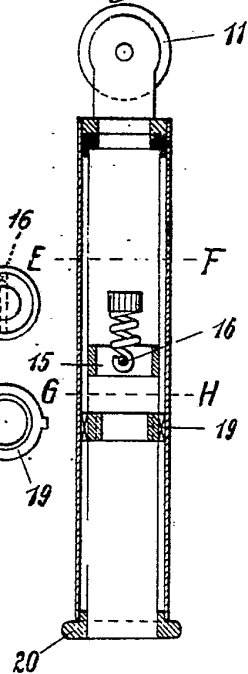


Fig. 15



Fig. 16



Fig. 17



FIG. 1

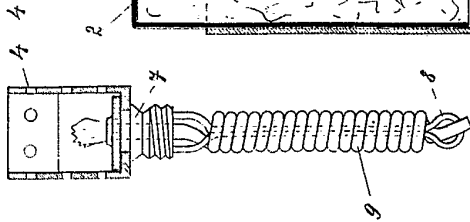


FIG. 2

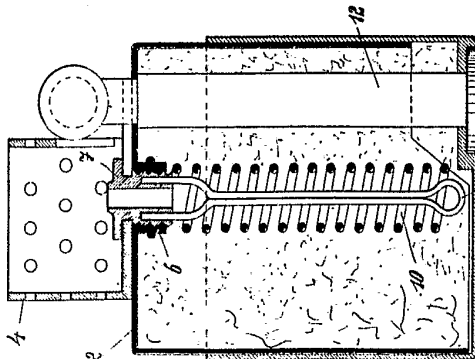


FIG. 3

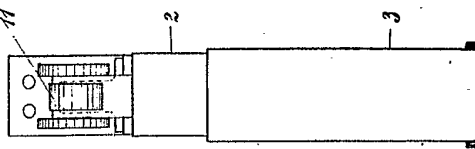


FIG. 5

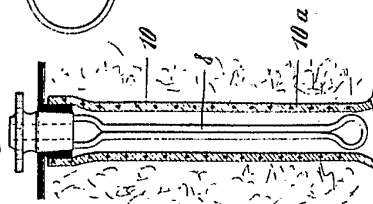


FIG. 4

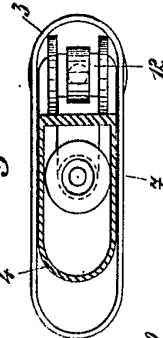


FIG. 6

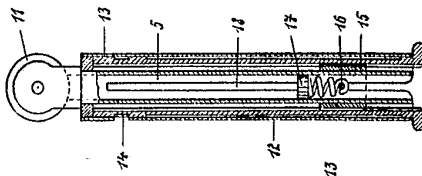


FIG. 8

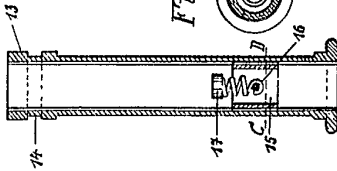


FIG. 7

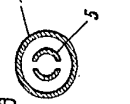


FIG. 11

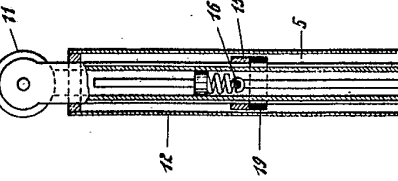


FIG. 12

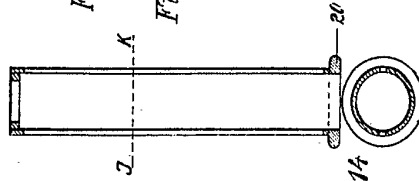


FIG. 13

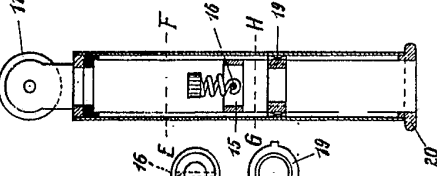


FIG. 15



FIG. 16



FIG. 14



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